

Figure 1a: C. Adachi, et. al.

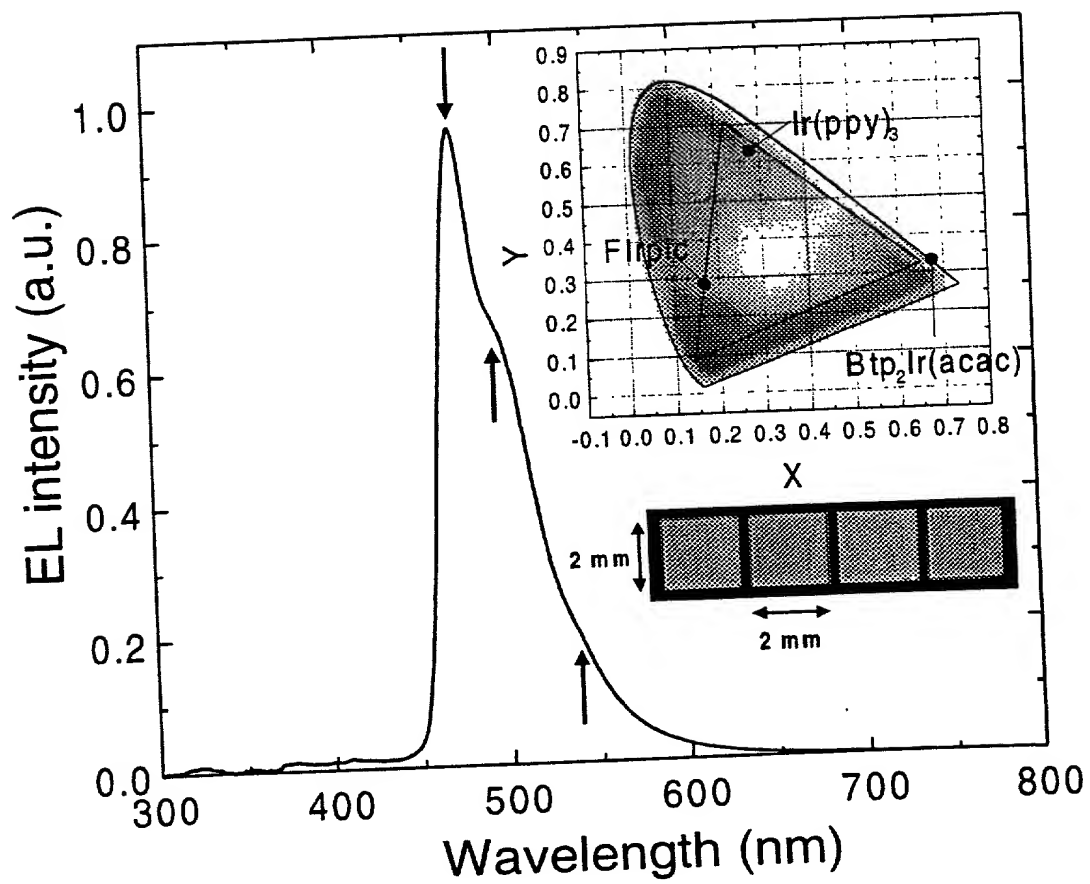


Figure 1b: C. Adachi, et. al.

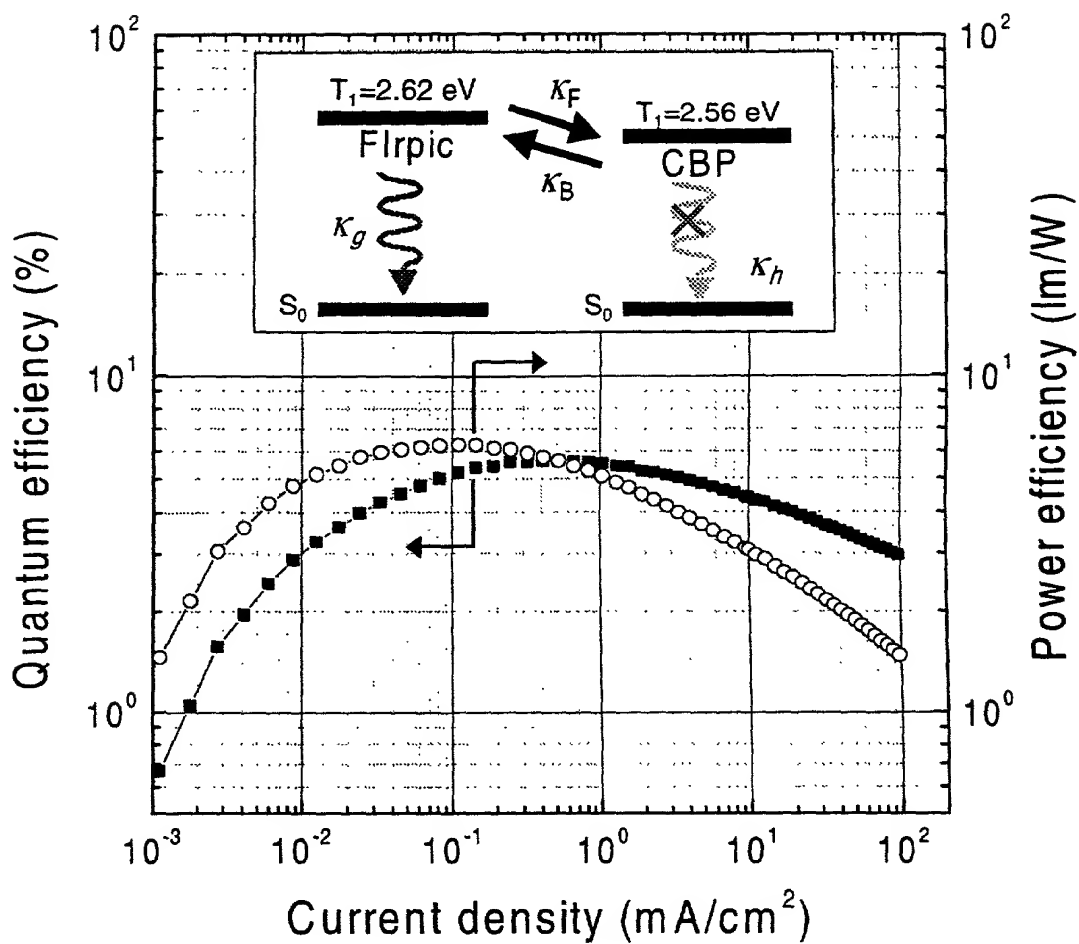


Figure 2: C. Adachi, et.al.

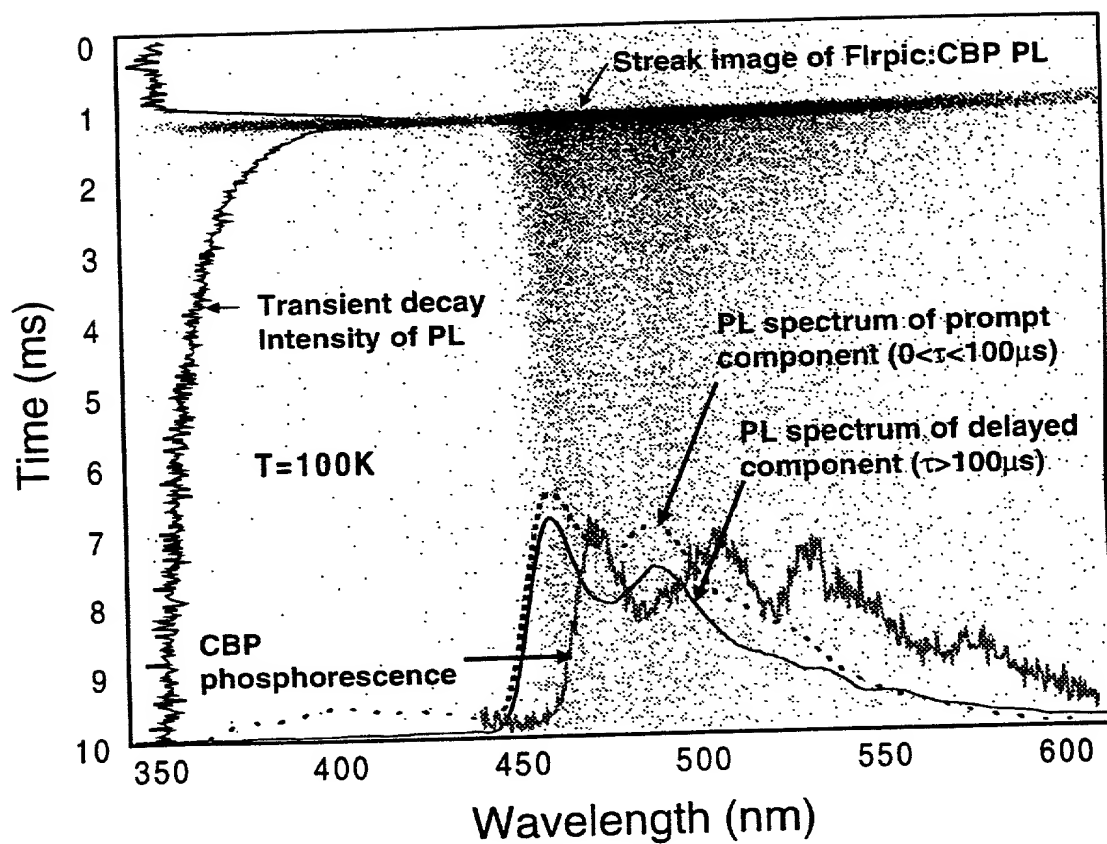


Figure 3: C. Adachi, et. al.

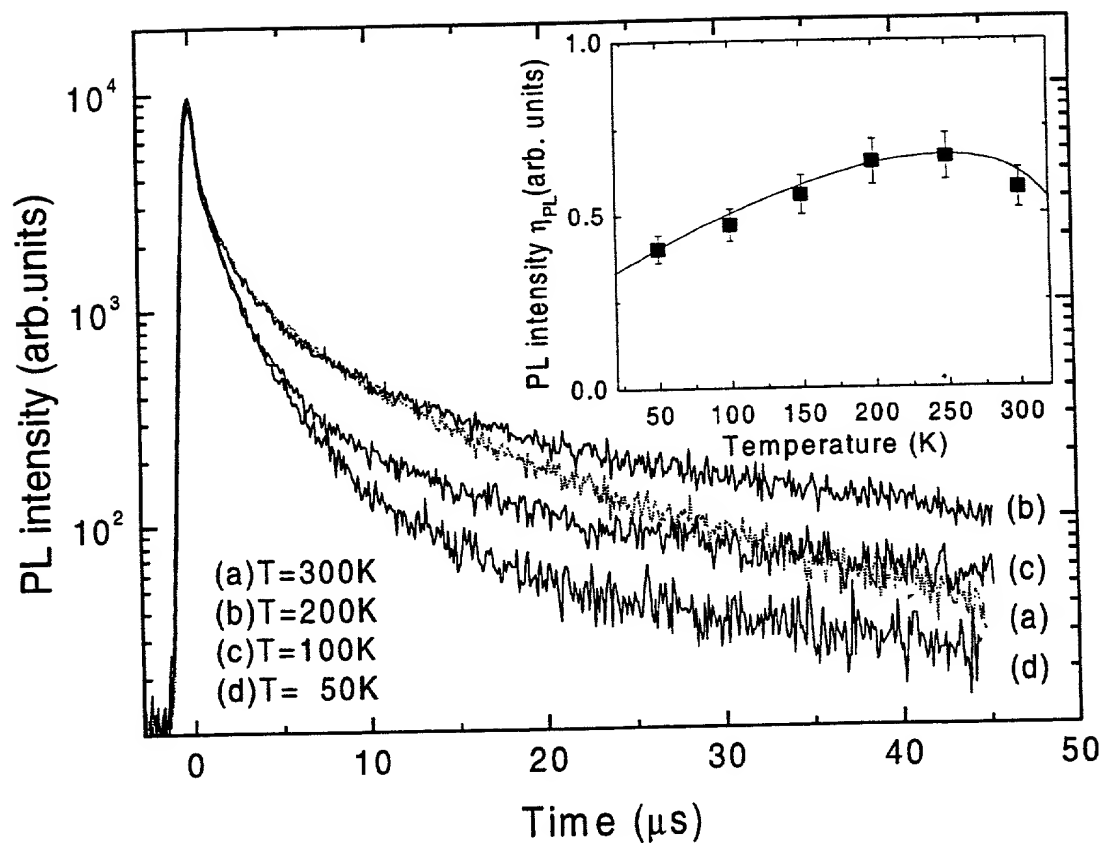
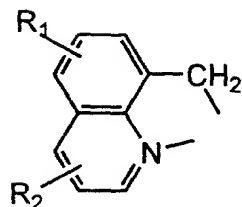
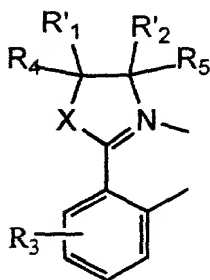
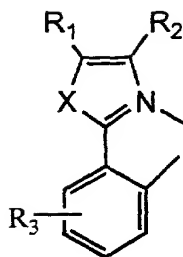
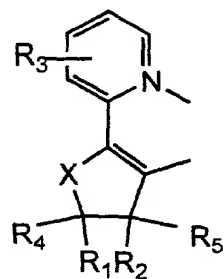
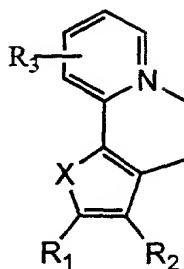
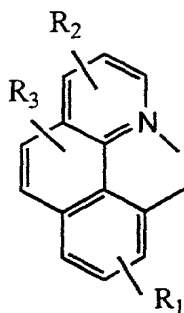
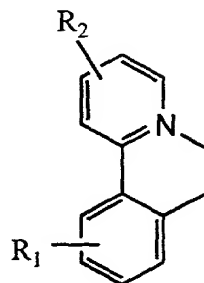
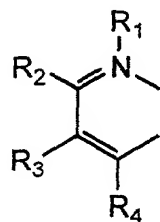


Figure 4: C. Adachi, et.al.

Figure 5a

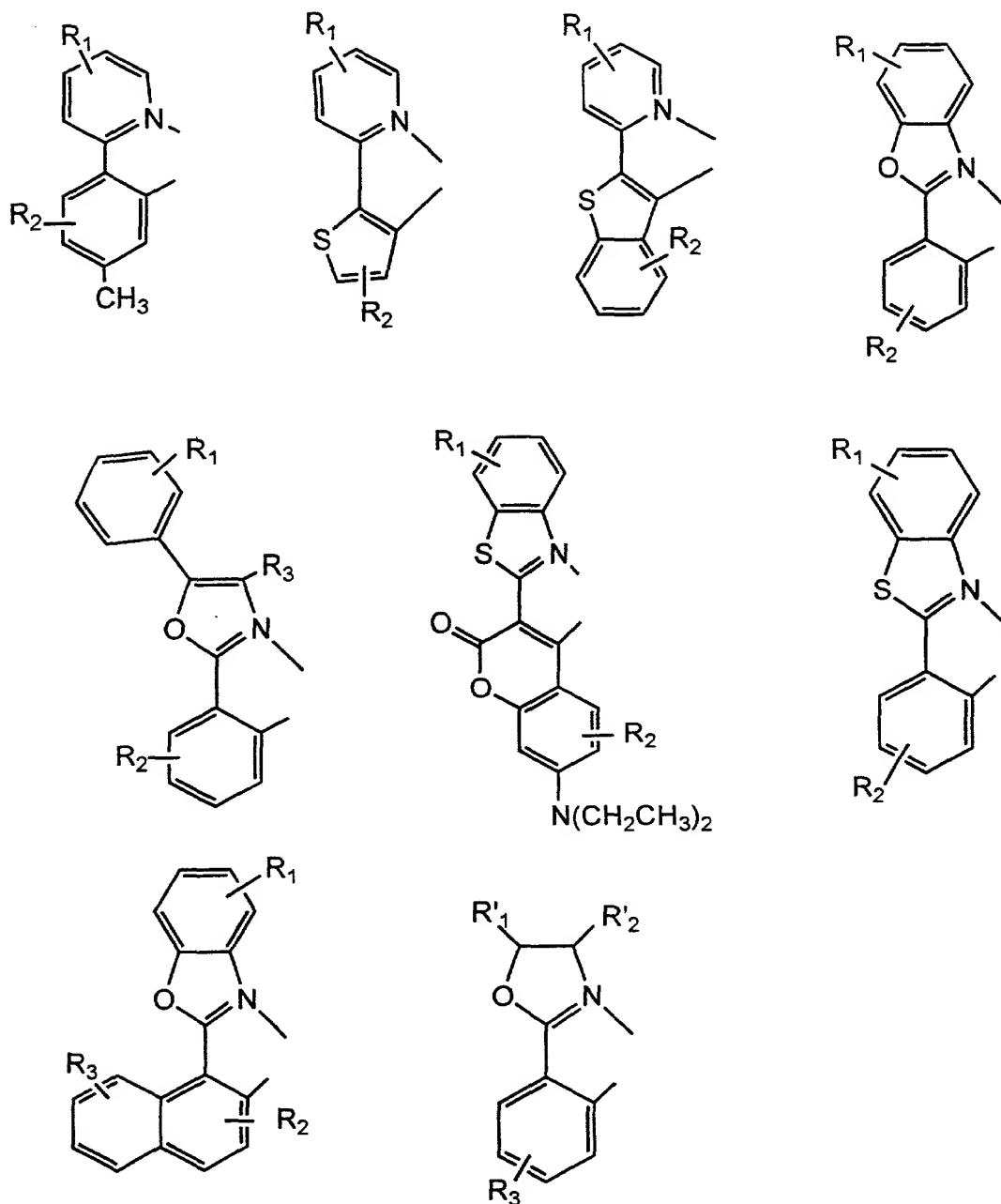
Generic Mono-Anionic, Bidentate, Carbon-Coordination Ligands-I



X = S, O, NR; and R₁, R₂, R₃, R₄ and R₅ are, independently, hydrogen, halogen, alkyl, aryl or arylene; and R'₁ and R'₂ may, in combination, be aryl.

Figure 5b

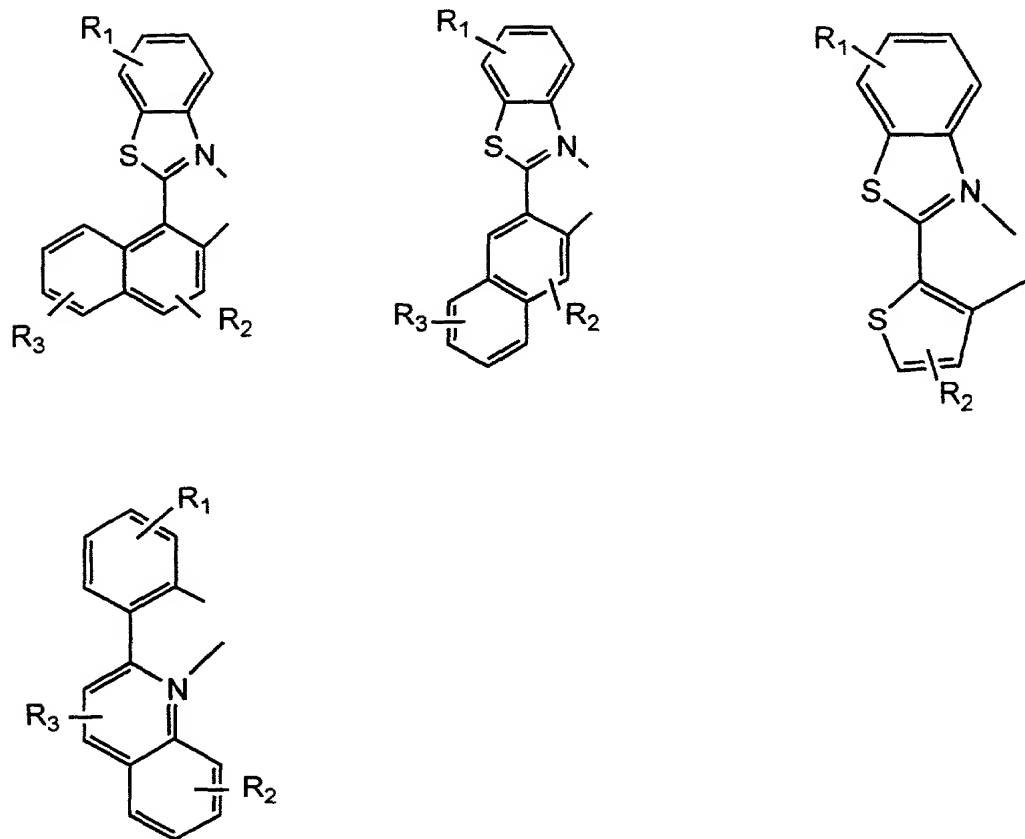
Generic Mono-Anionic, Bidentate, Carbon-Coordination Ligands-II



$X = S, O, NR$; and R_1, R_2, R_3, R_4 and R_5 are, independently, hydrogen, halogen, alkyl, aryl or arylene; and R'_1 and R'_2 may, in combination, be aryl.

Figure 5c

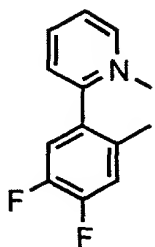
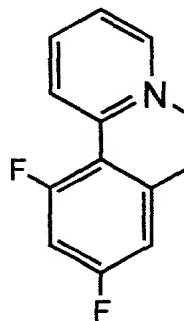
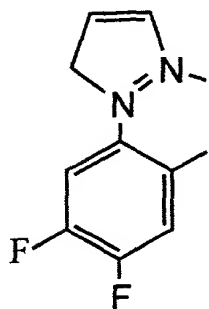
Generic Mono-Anionic, Bidentate, Carbon-Coordination Ligands-III



X = S, O, NR; and R₁, R₂, R₃, R₄ and R₅ are, independently, hydrogen, halogen, alkyl, aryl or arylene.

Figure 5d

Specific Mono-Anionic, Bidentate, Carbon-Coordination Ligands-I



UDC Proprietary and Confidential

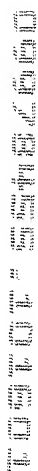
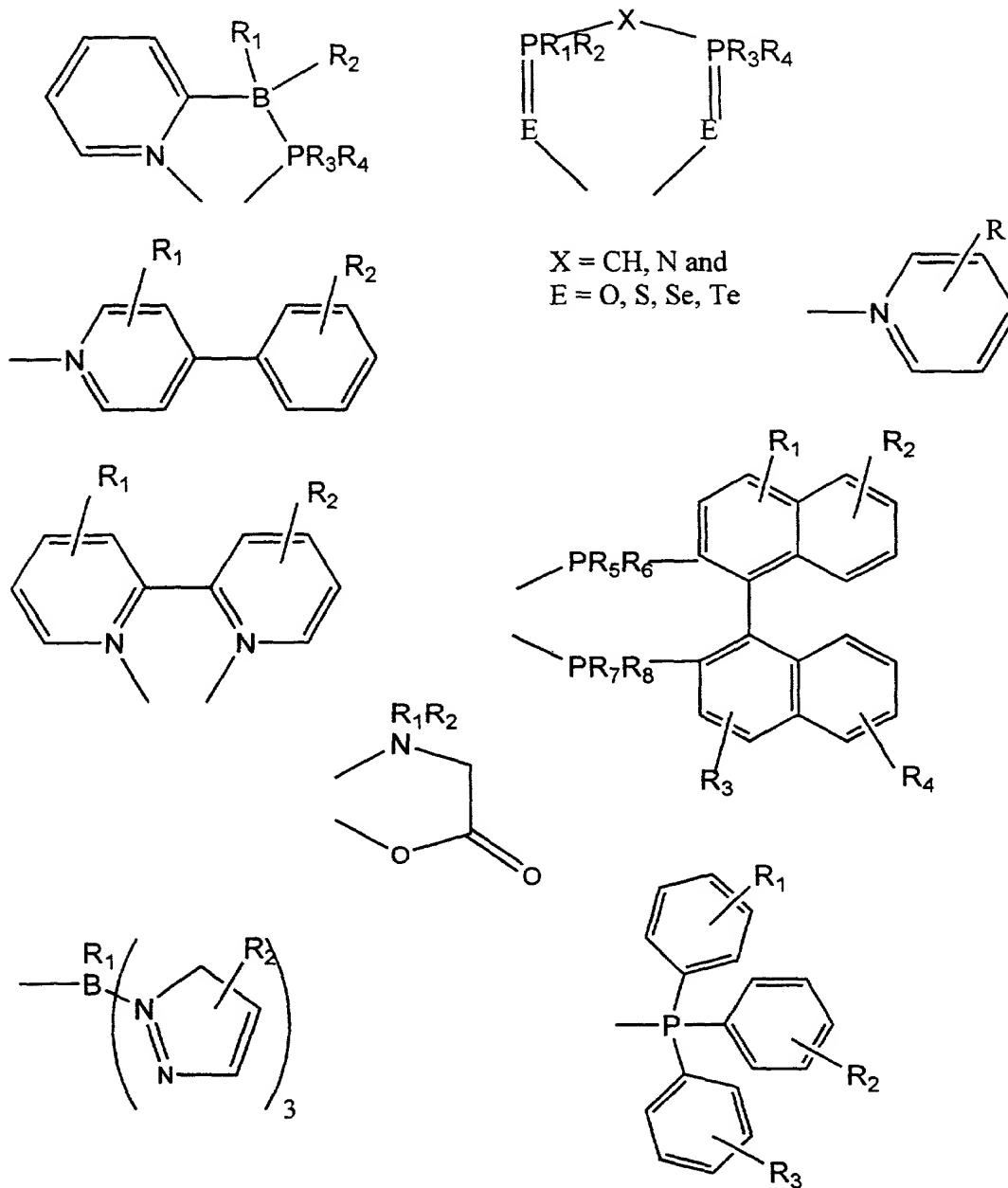
[illegible][illegible][illegible]

Figure 6b

Generic Non-Mono-Anionic, Bidentate, Carbon-Coordination Ligands-II



R, R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 and R_8 are, independently, hydrogen, halogen, alkyl or aryl.

Figure 6c

Specific Non-Mono-Anionic, Bidentate, Carbon-Coordination Ligands

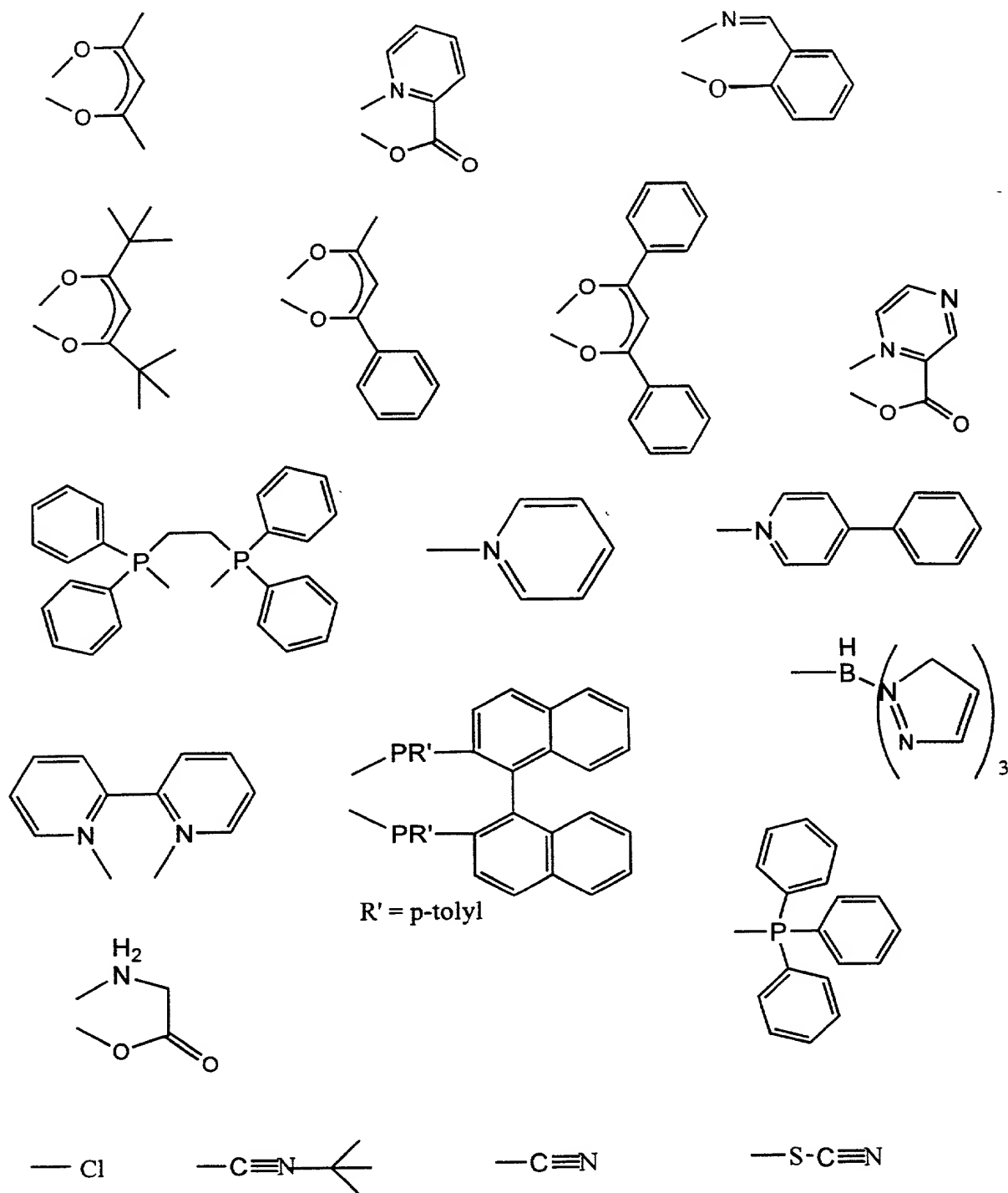


Figure 7a

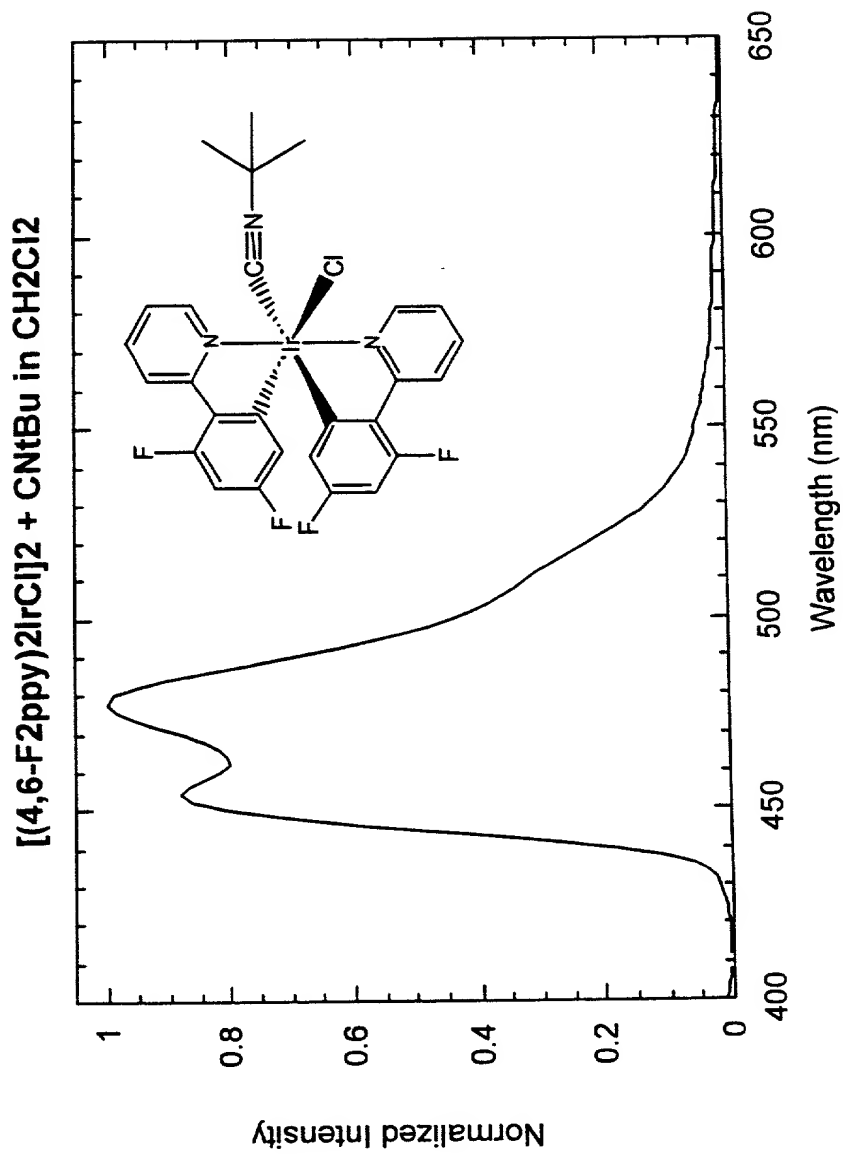


Figure 7b

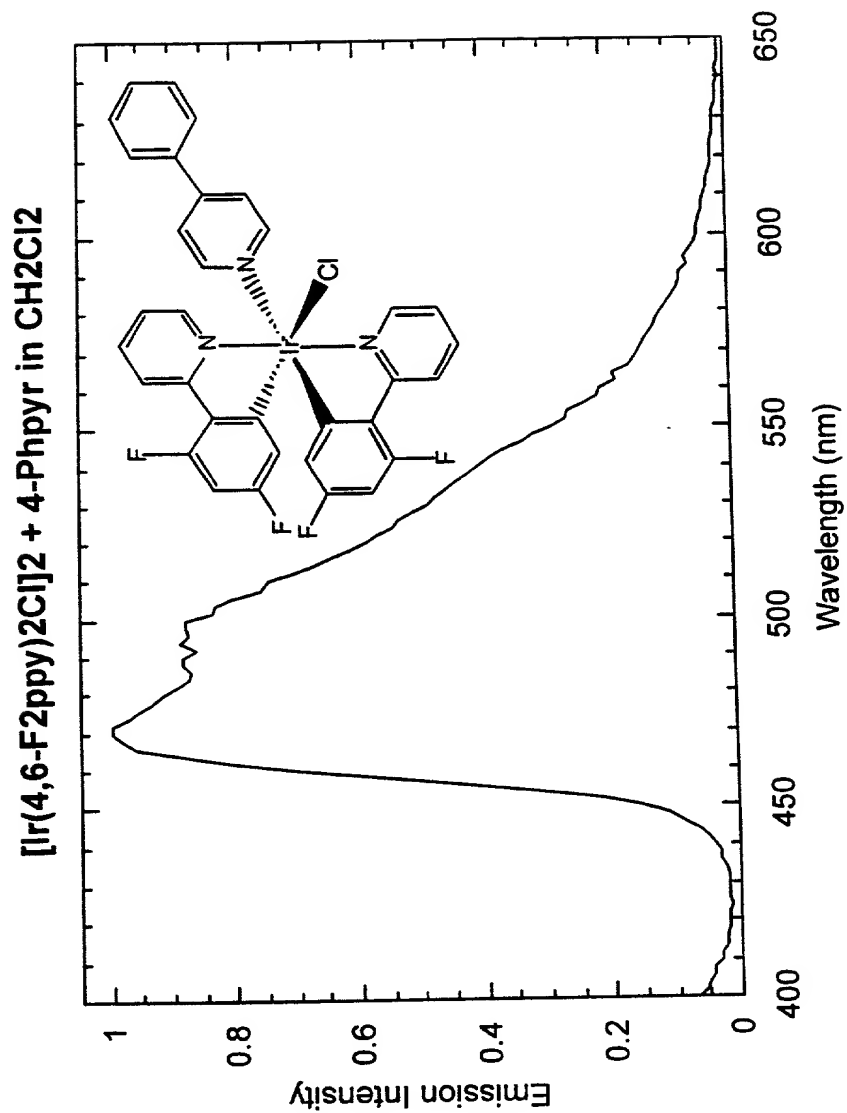


Figure 7c

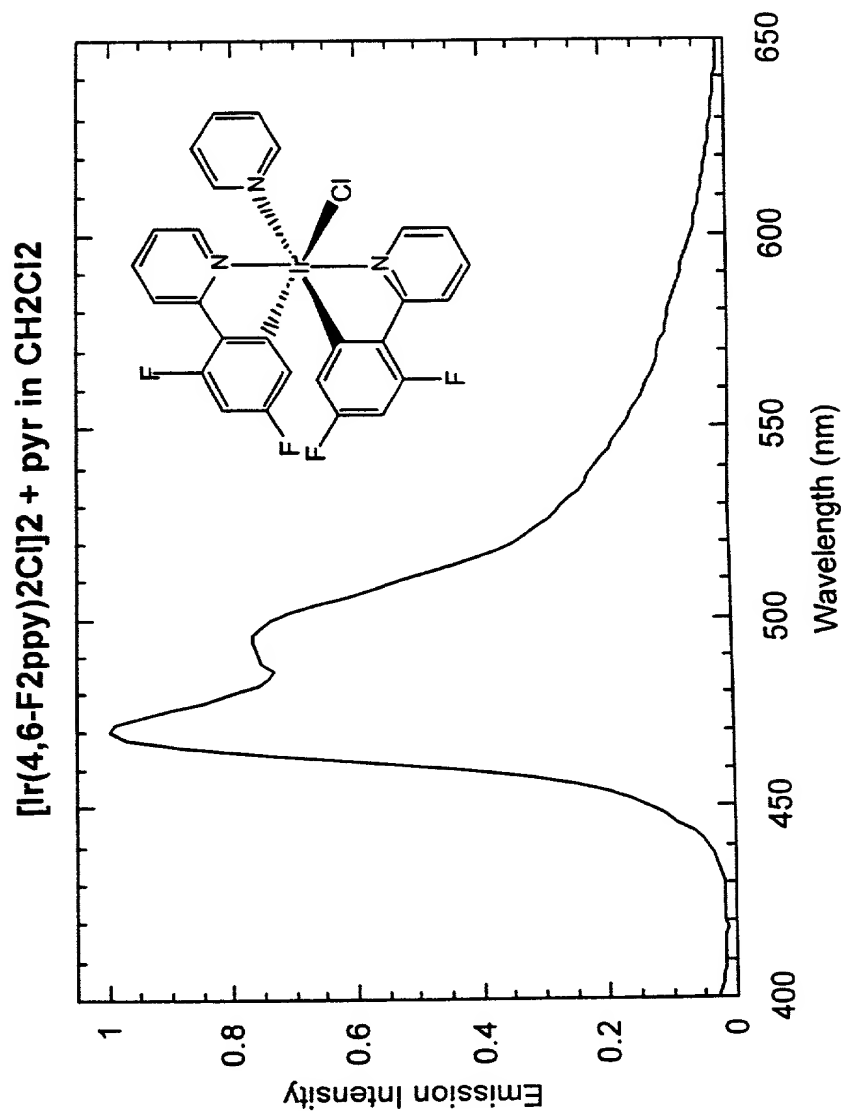


Figure 7d

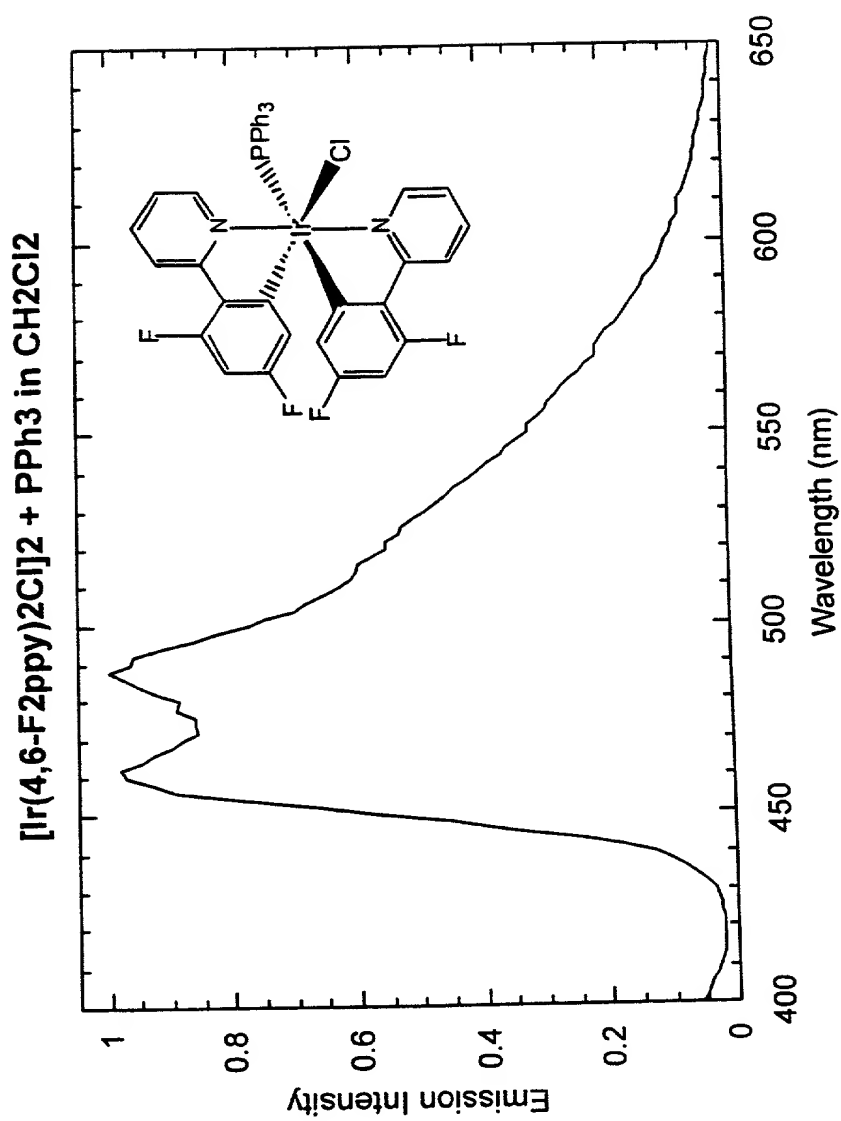


Figure 7e

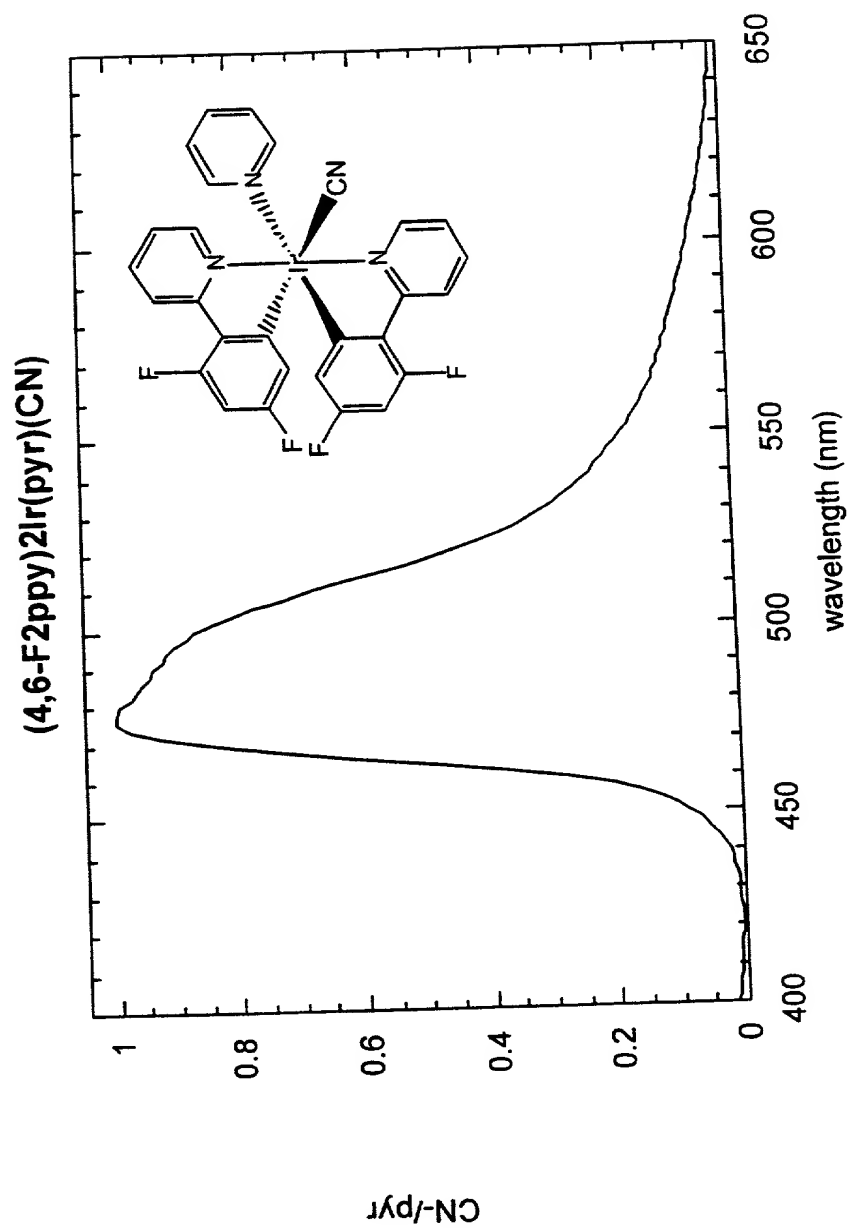


Figure 7f

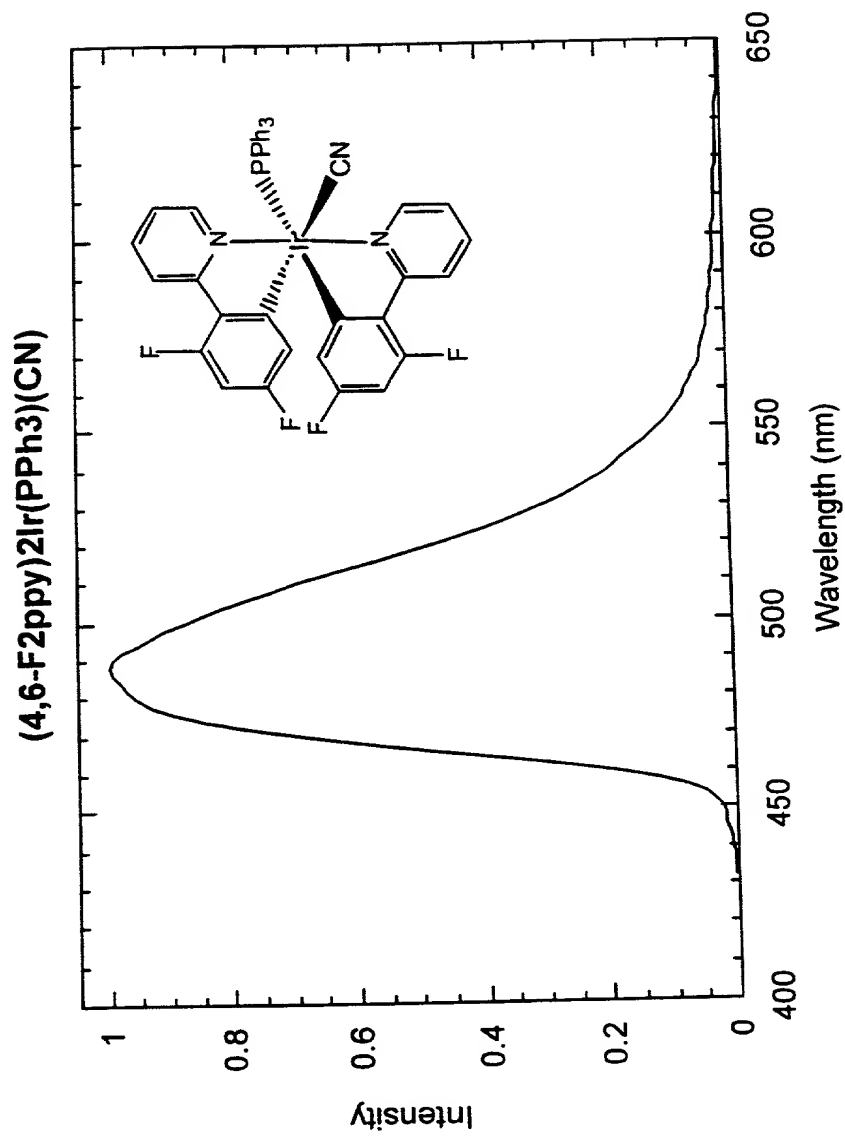


Figure 7g

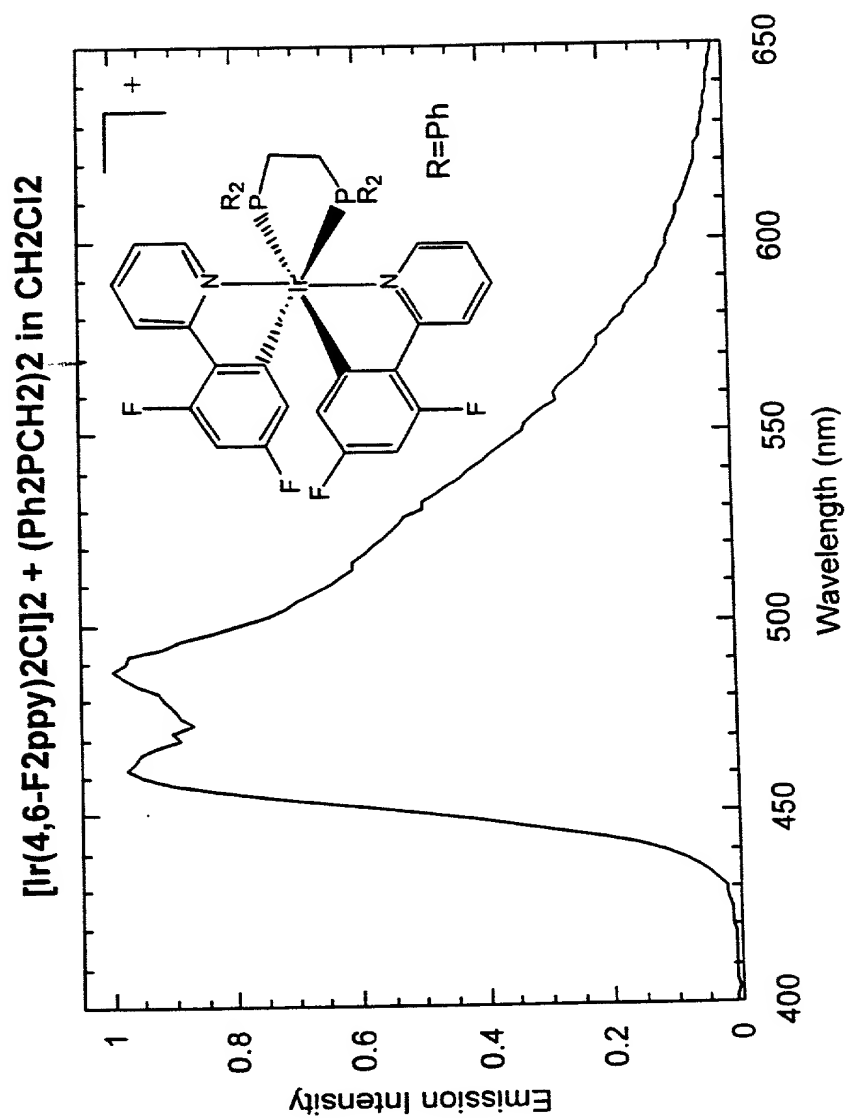


Figure 7h

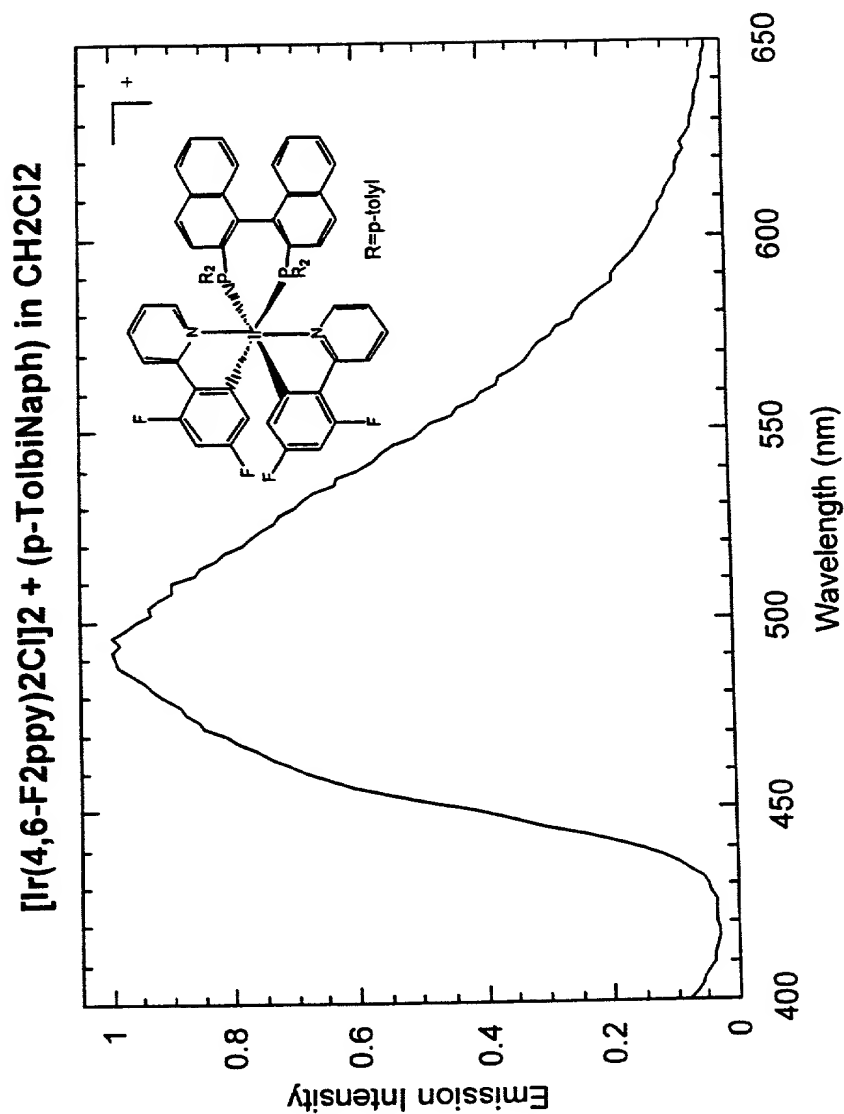


Figure 7i

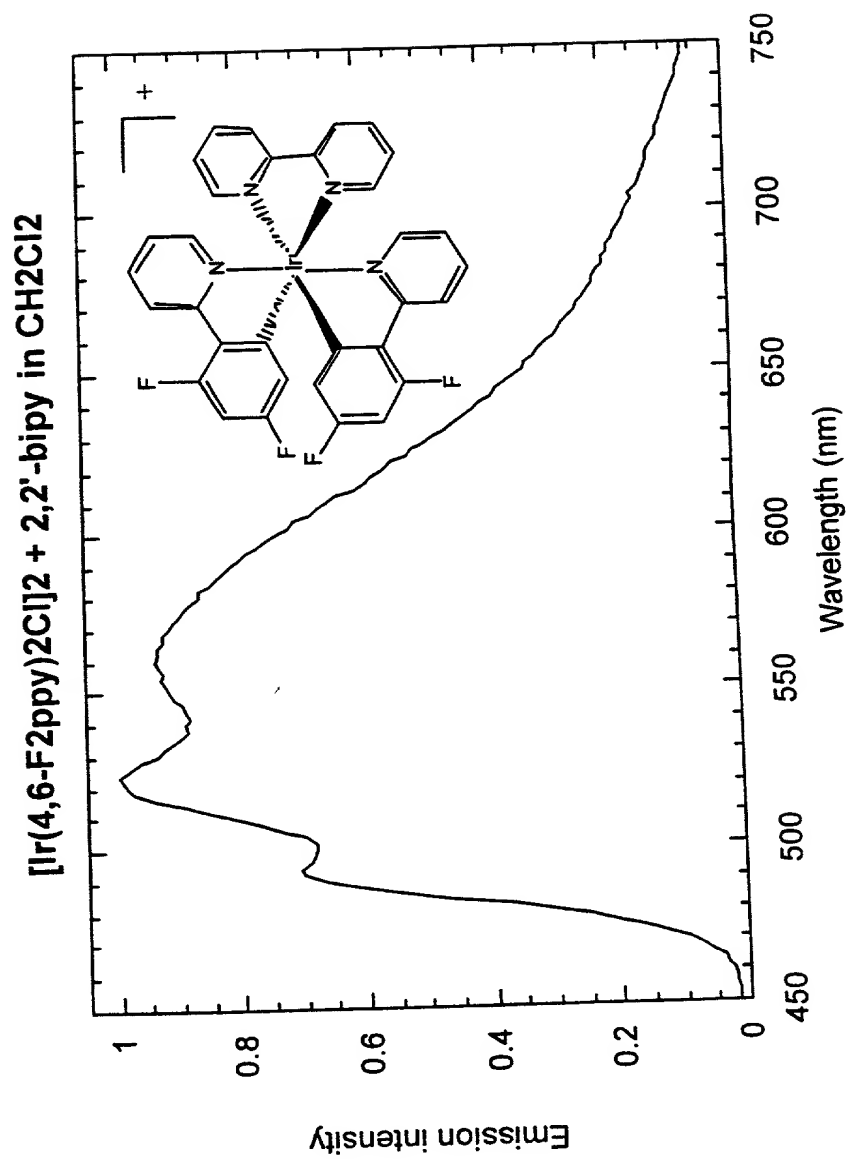


Figure 7j

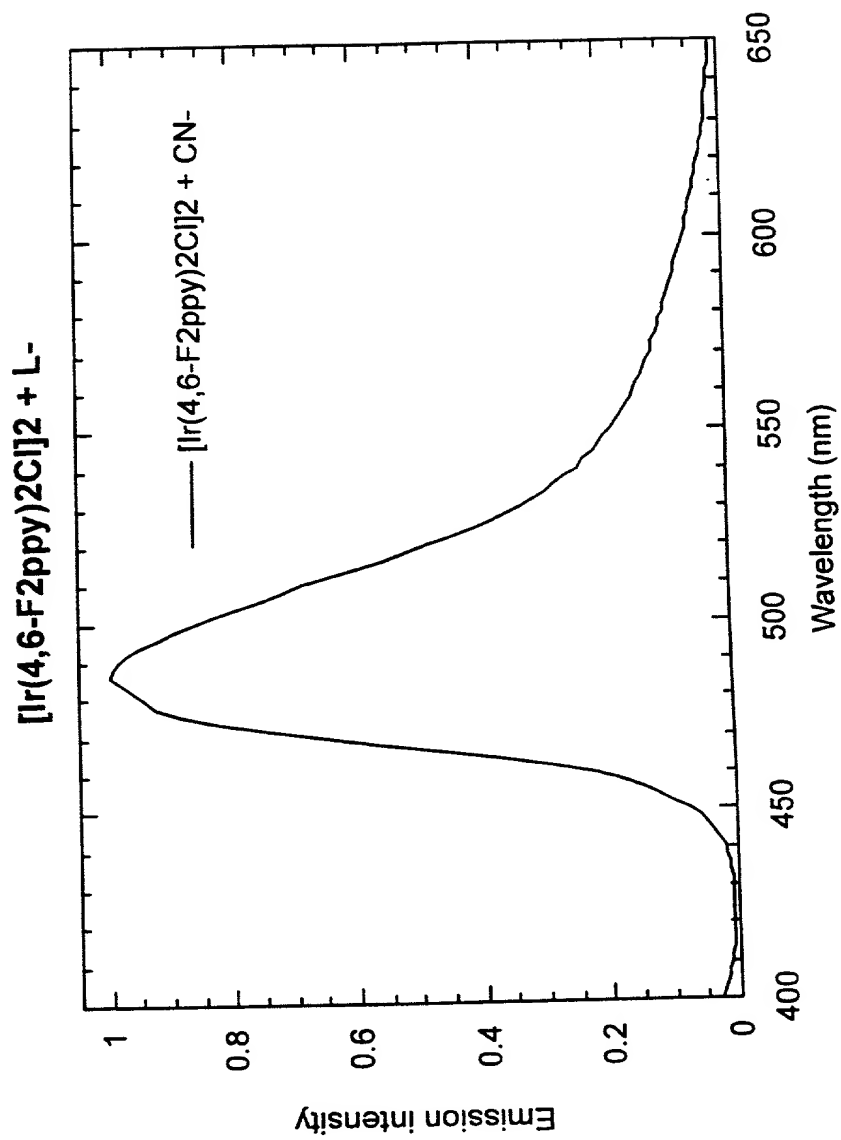


Figure 7k

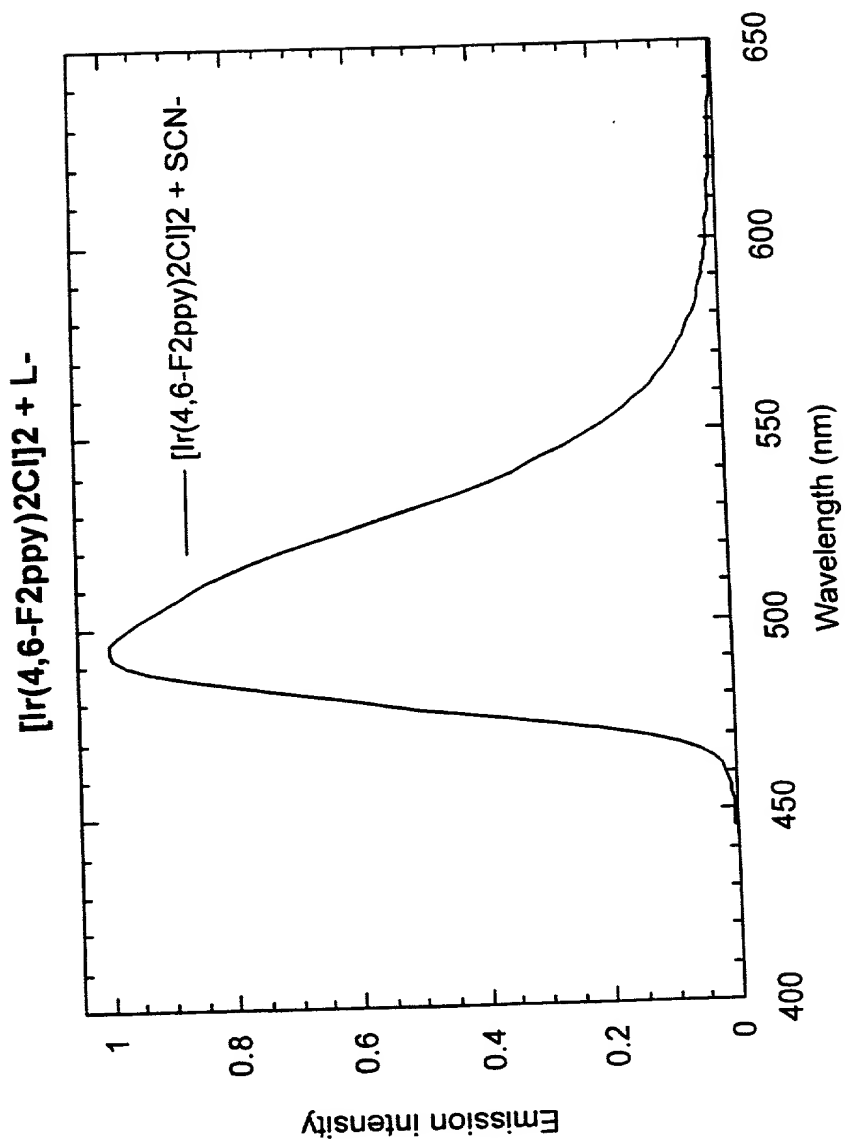


Figure 70

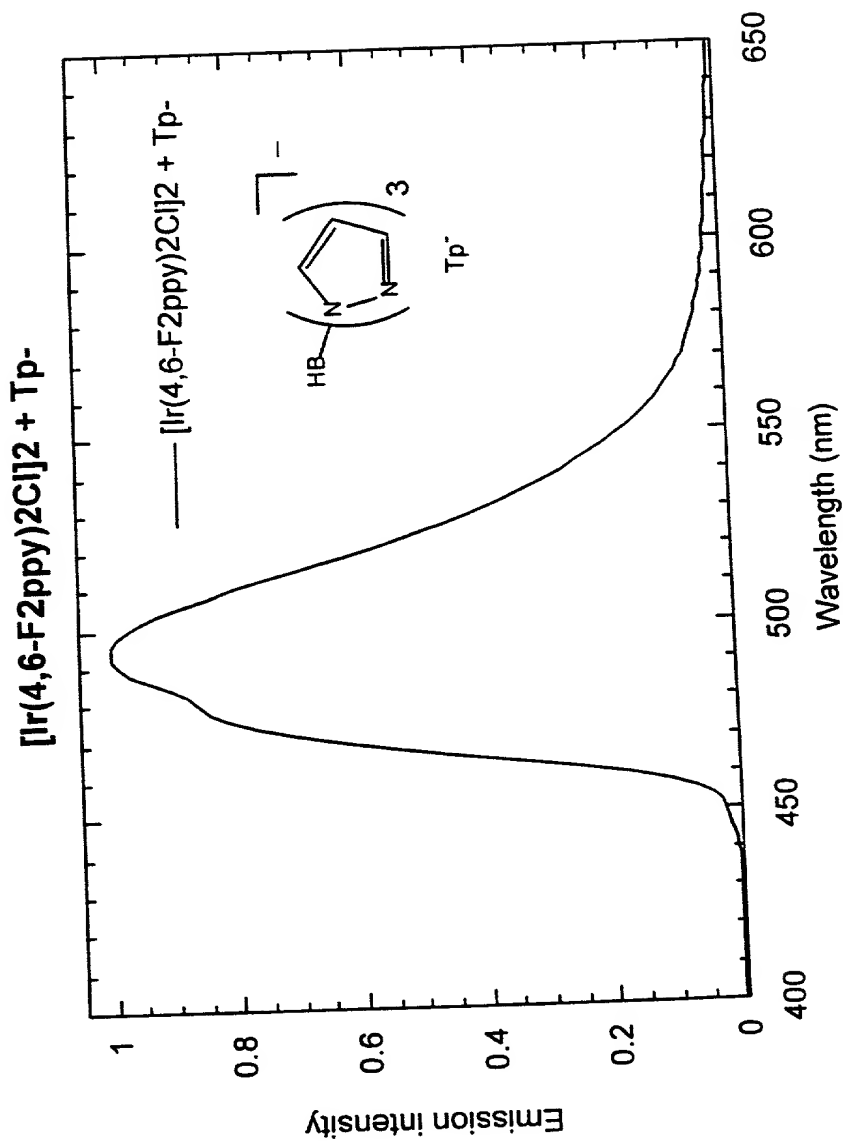


Figure 7m

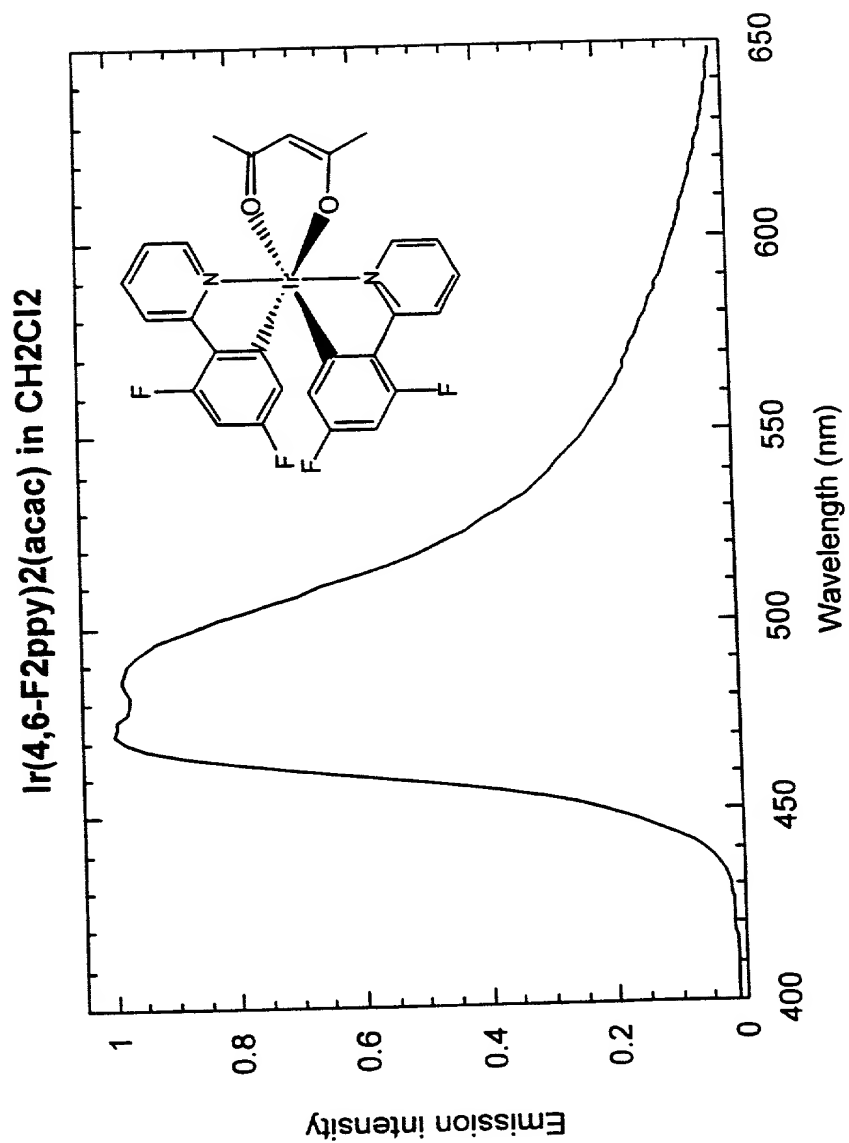


Figure 7n

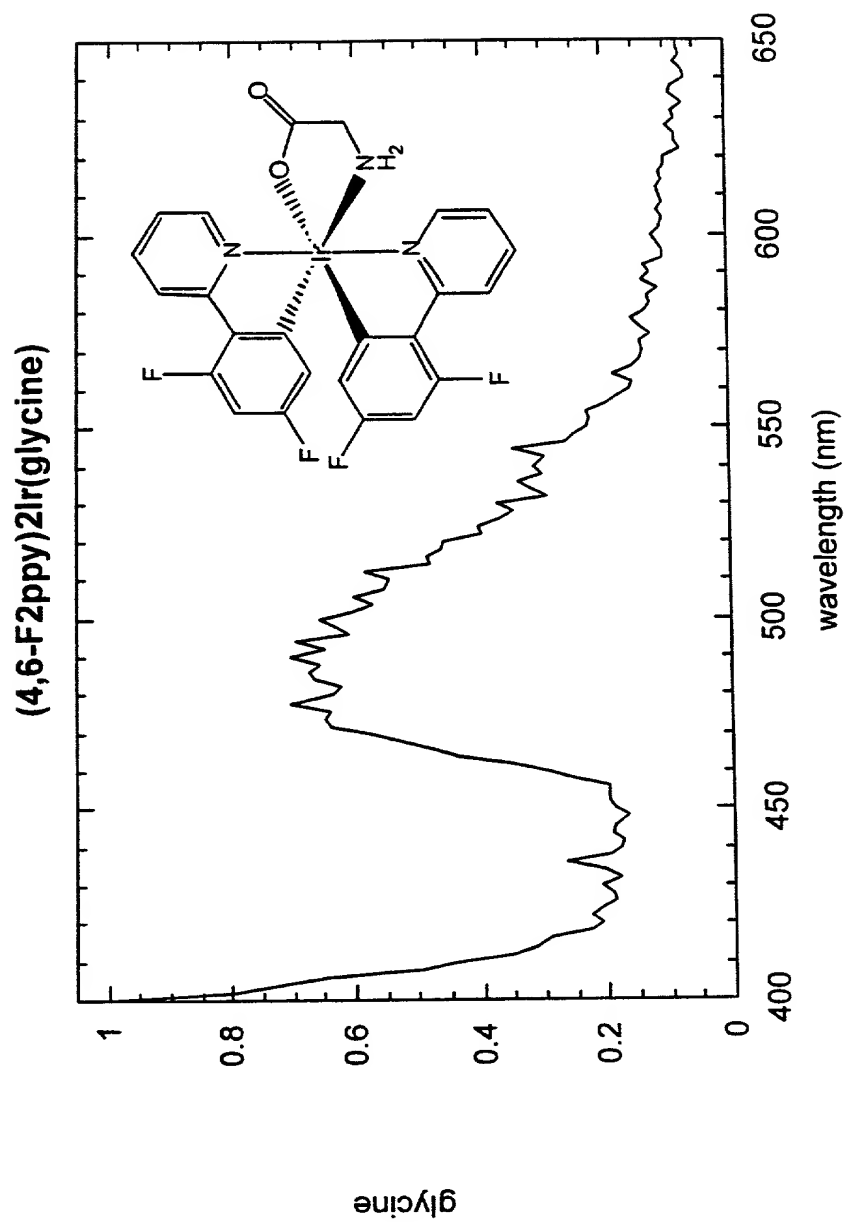


Figure 7o

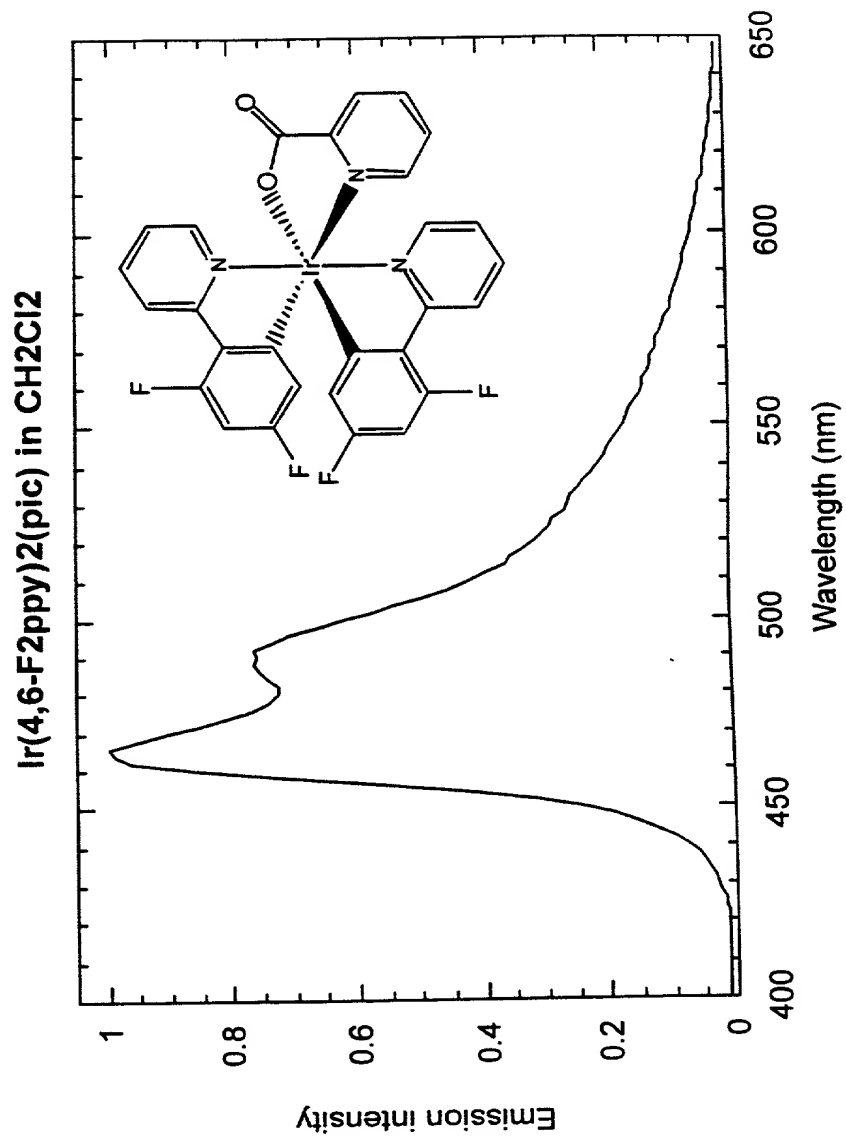


Figure 7p

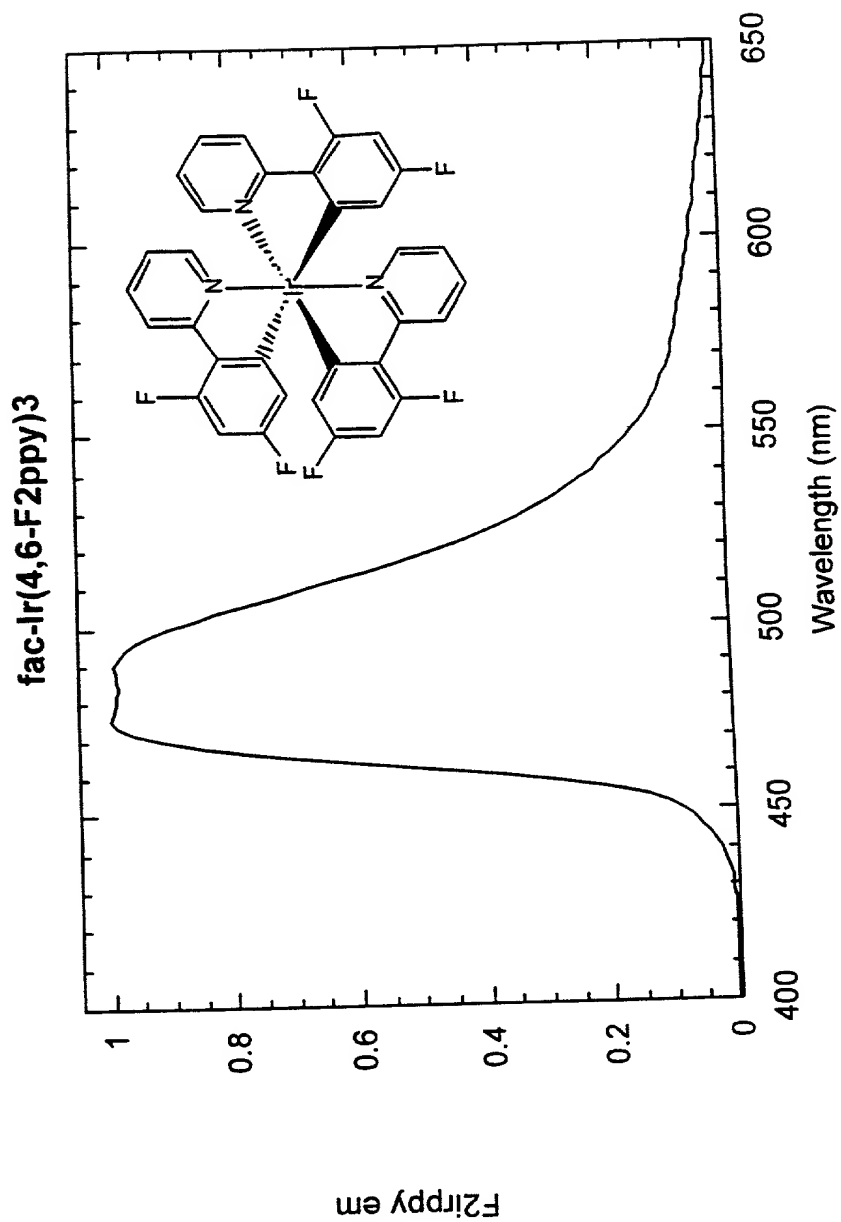


Figure 79

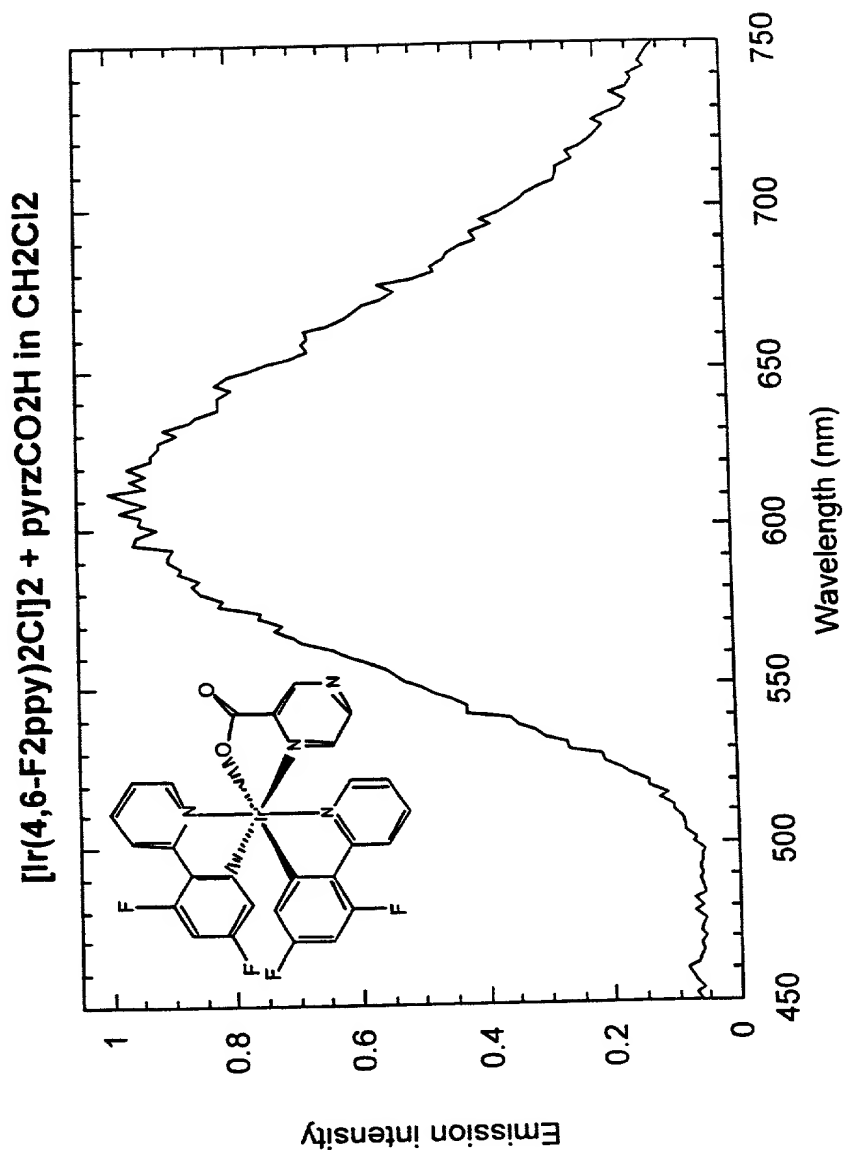


Figure 7r

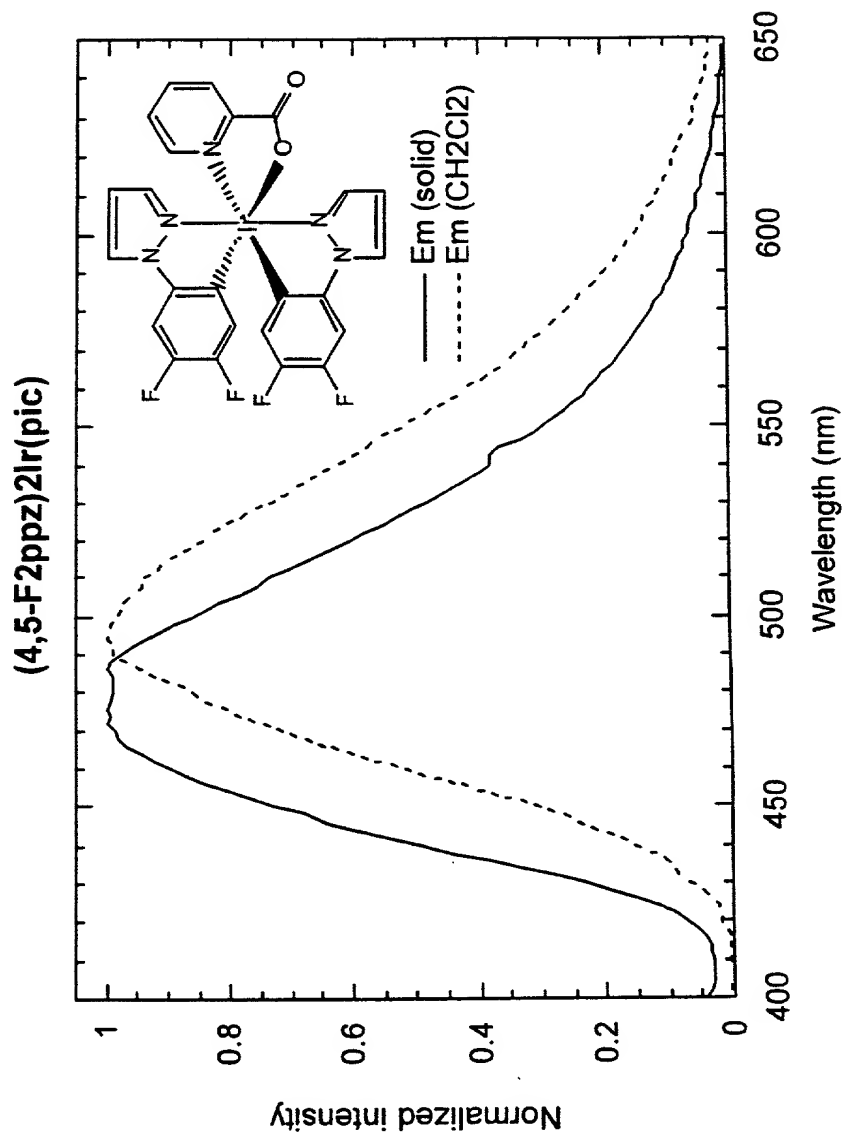
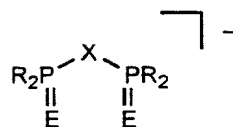
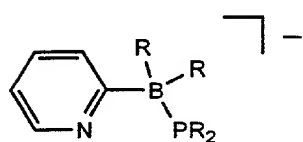
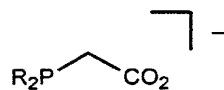
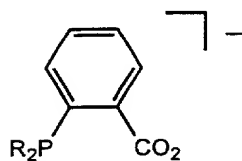
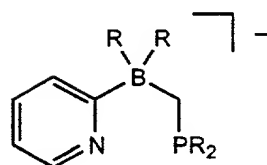
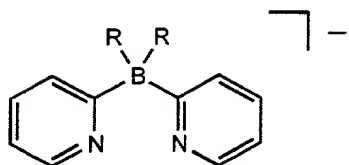
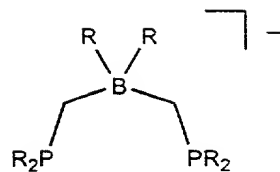
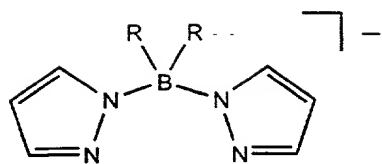


Figure 8a



X=CH, N
E=O, S, Se, Te

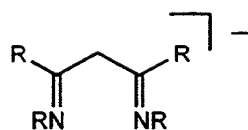


Figure 8b

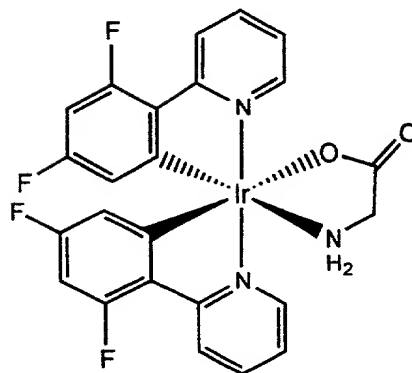
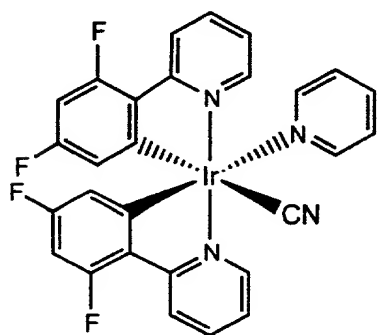
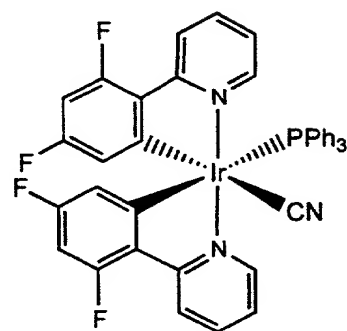
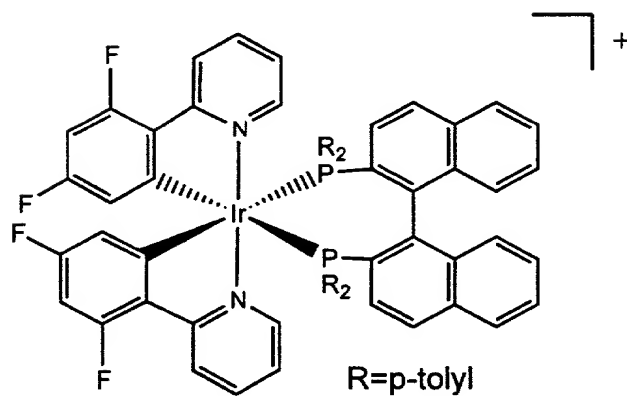
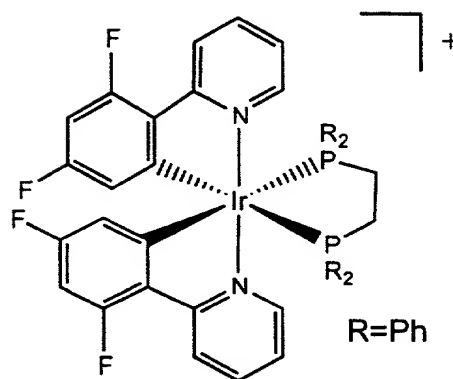
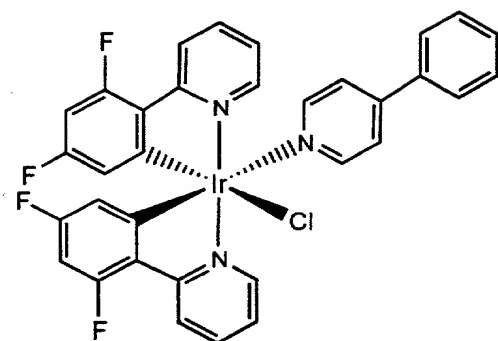
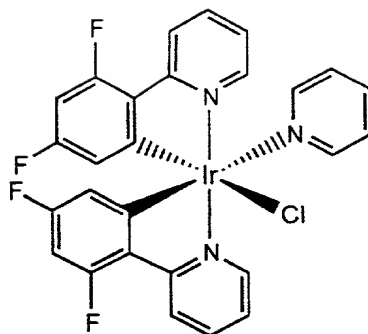
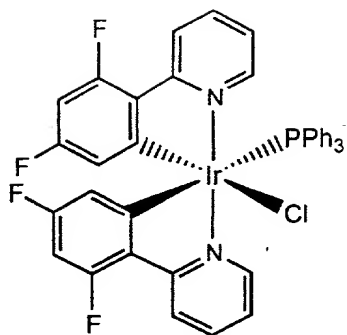


Figure 8c

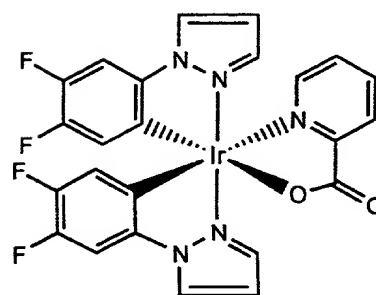
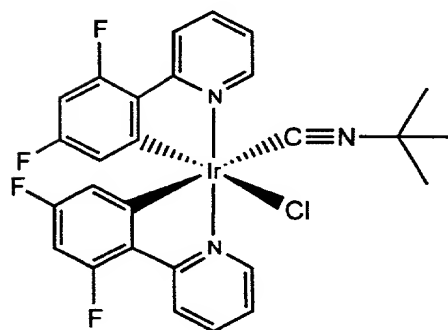
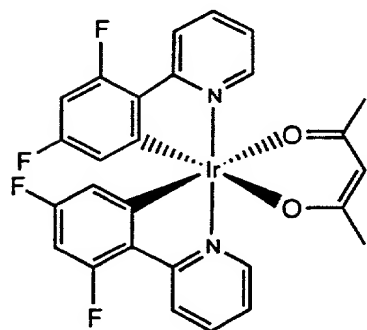
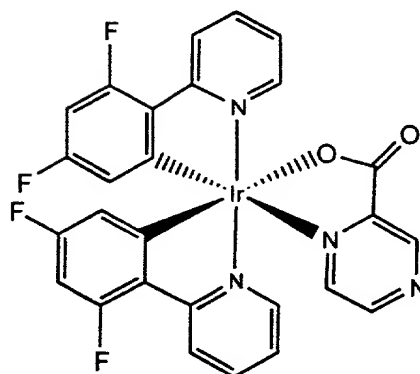
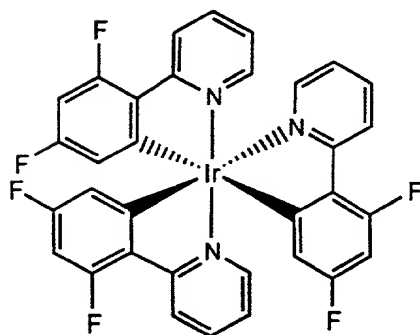
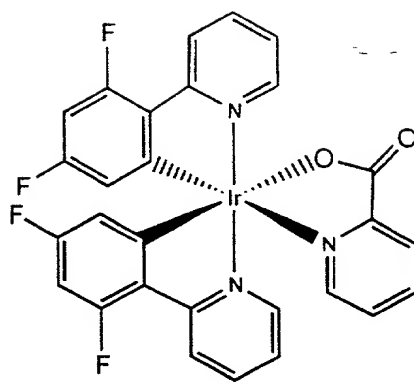
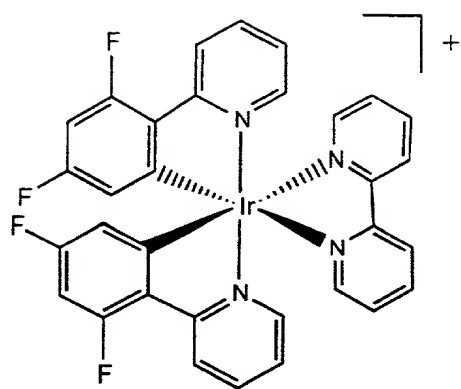
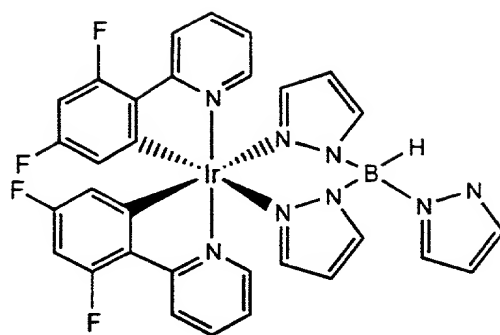
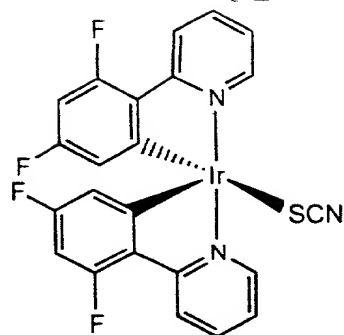
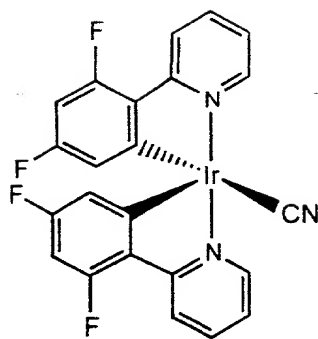
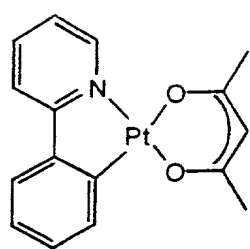


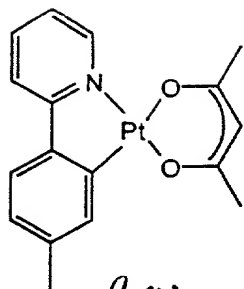
Figure 8d





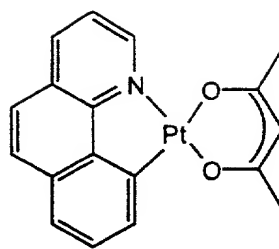
9(a)

(ppy)Pt(acac)



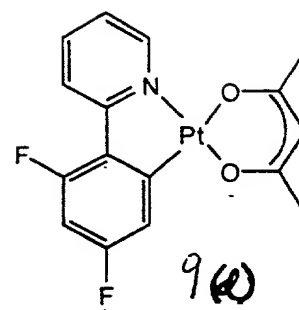
9(b)

(tpy)Pt(acac)



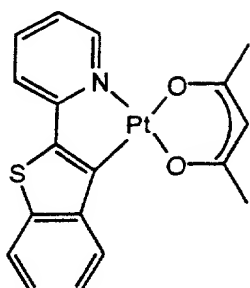
9(c)

(bzq)Pt(acac)



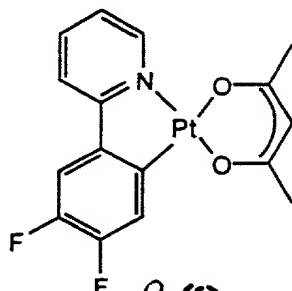
9(d)

(4,6-F₂ppy)Pt(acac)



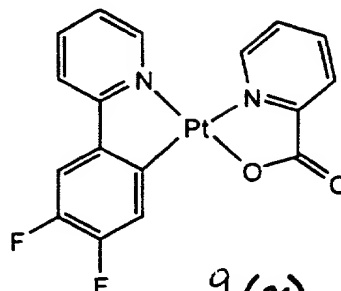
9(e)

(btp)Pt(acac)



9(f)

(4,5-F₂ppy)Pt(acac)



9(g)

(4,5-F₂ppy)Pt(pico)

Figures 9(a) - 9(g)

Figure 10: This Emission spectrum shows the spectra of both $\text{Pt}(\text{ppy})_2$ and $\text{Pt}(\text{ppy})_2\text{Br}_2$. The former gives green emission, partly from MLCT transitions, and the latter gives blue emission, predominantly from a triplet $\pi-\pi^*$ transition. The structure observed for the $\text{Pt}(\text{ppy})_2\text{Br}_2$ spectrum is consistent with ligand centered emission. The luminescent lifetimes for the two complexes are 4 and 150 μsec .

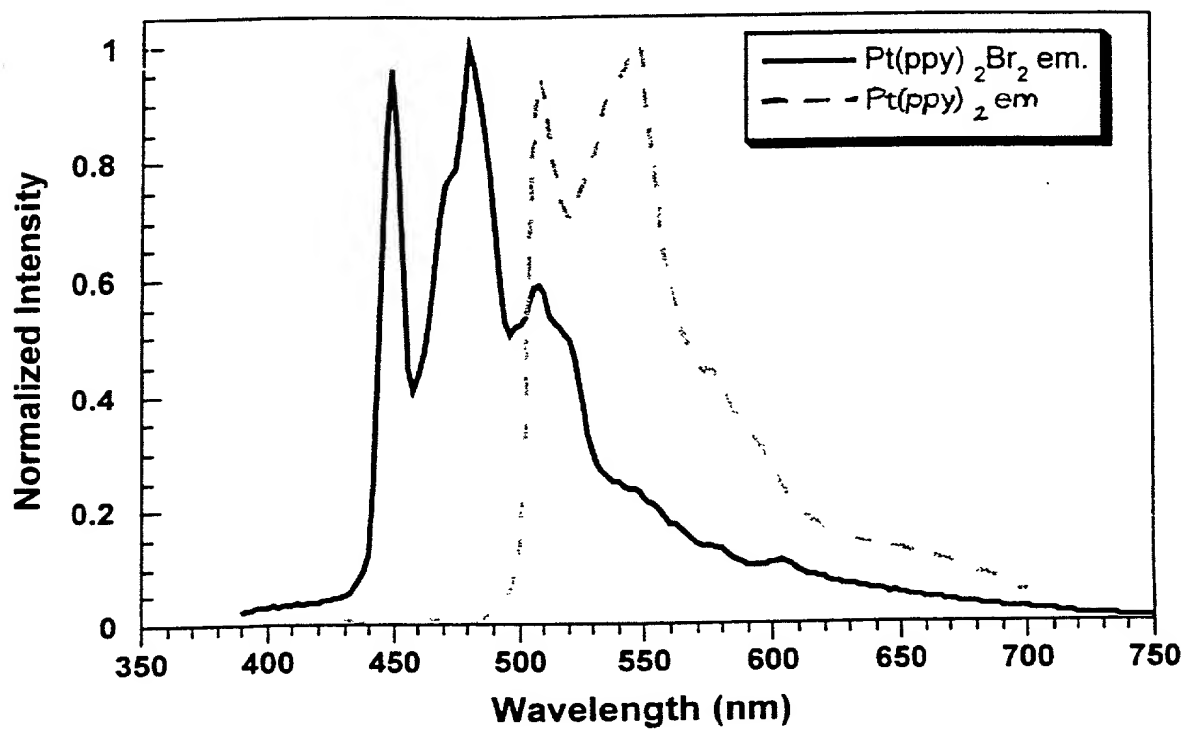


Figure 10

Figure 11: This plot shows the emission spectra of (ppy)AuCl₂ and (ppy)A 2,2'-biphenylene. Both emit from ligand triplet $\pi-\pi^*$ transitions.

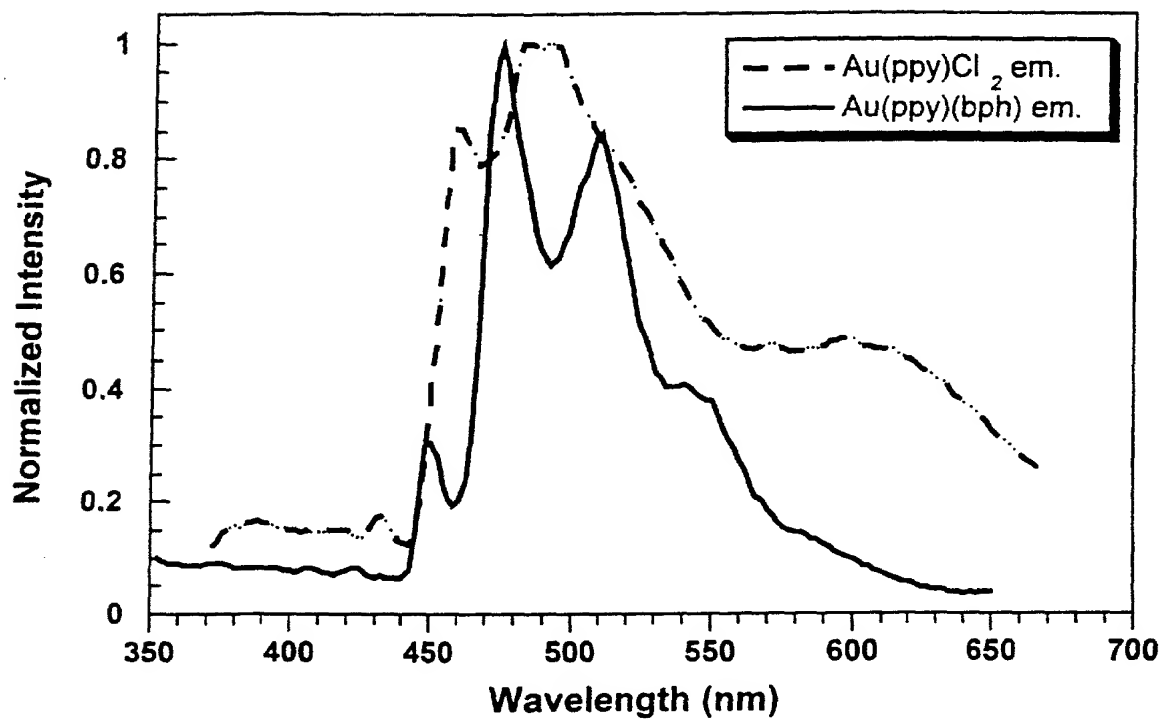


Figure 11

x	y	#	C-N
0.21	0.5	1	tpy
0.26	0.56	2	bzq
0.65	0.35	3	btpp
0.17	0.29	4	4,6-F ₂ ppy
0.2	0.51	5	ppy
0.23	0.56	6	4,5-F ₂ ppy
0.24	0.62	7	* 4,5-F ₂ ppy-pico
0.26	0.54	8	4,5-F ₂ ppy__EL
0.262	0.608	9	Ir(ppy) ₃

all (C-N)Pt(acac) except *

Figure 12

(4,6-F2PPY)Pt(acac)

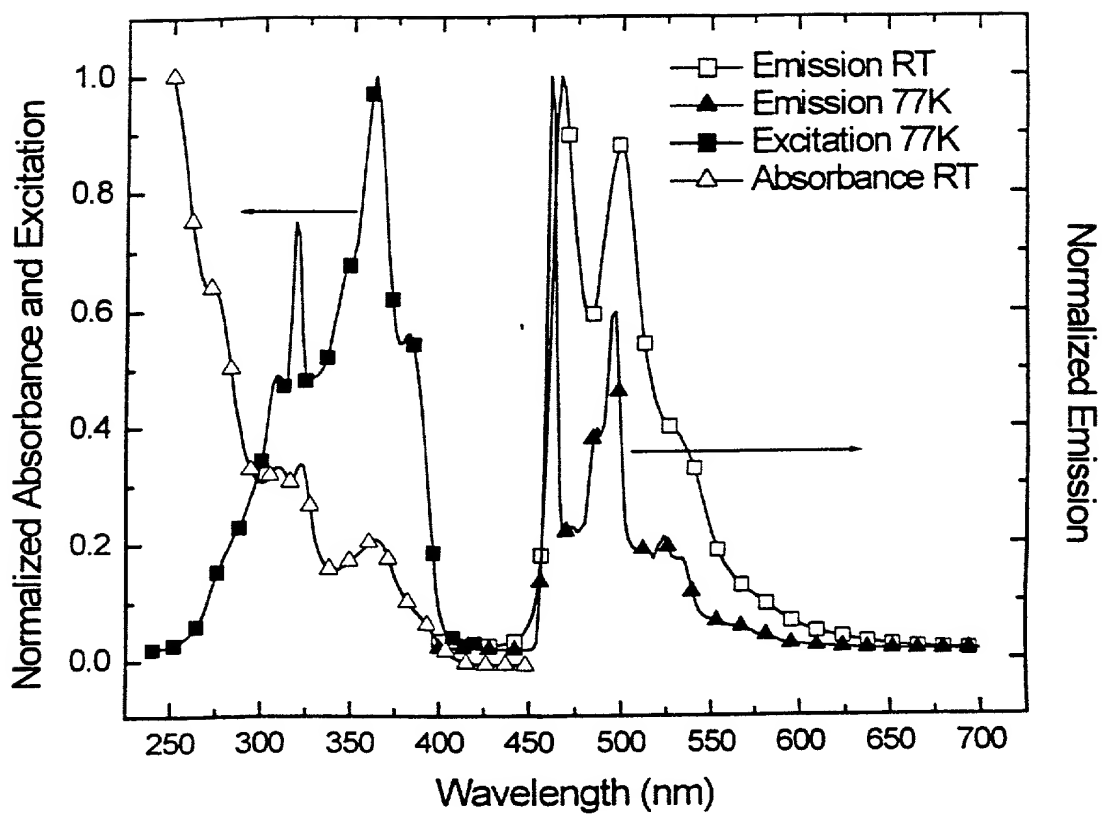


Figure 13

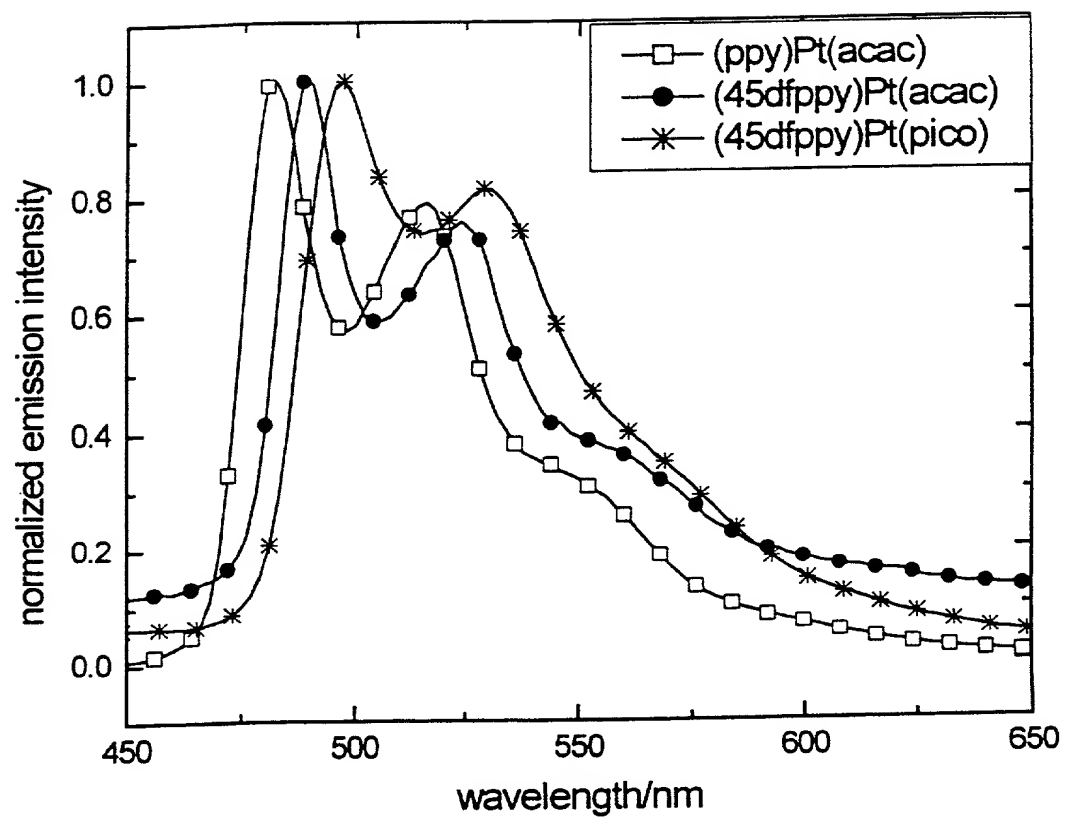


Figure 14

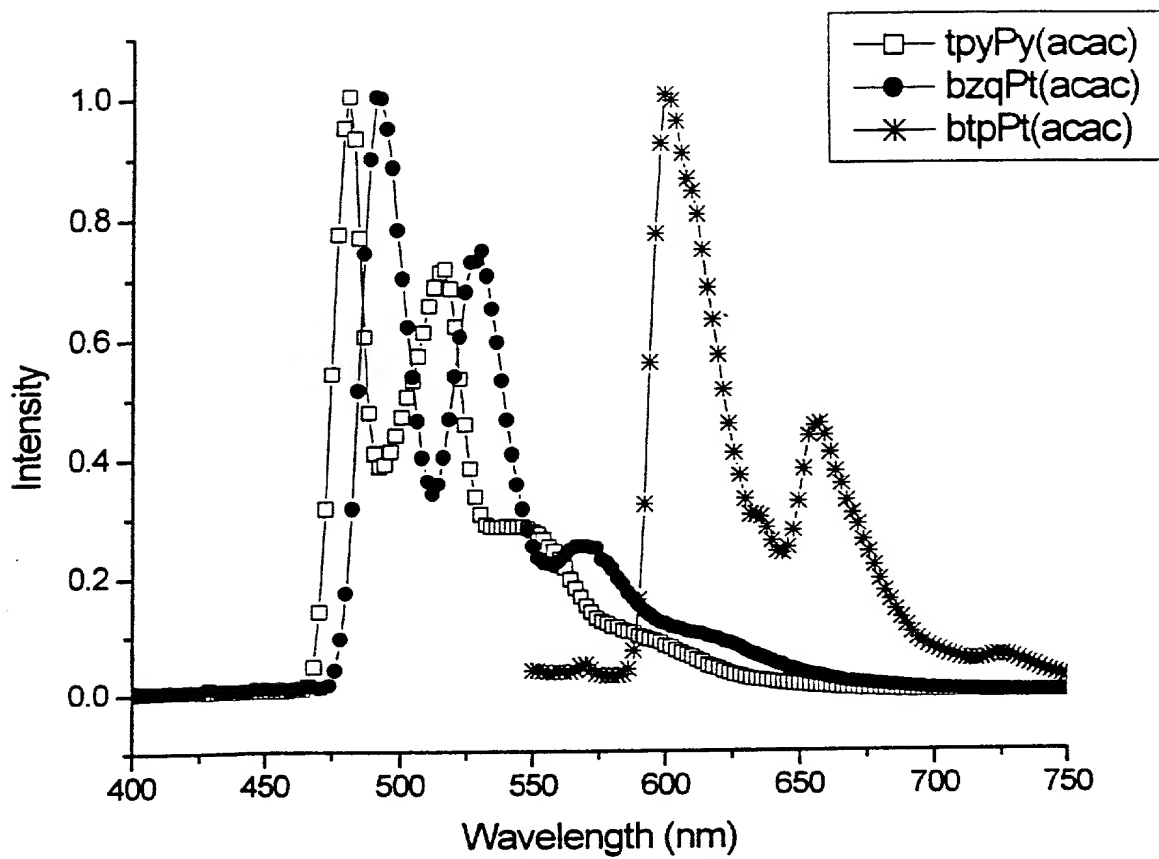


Figure 15

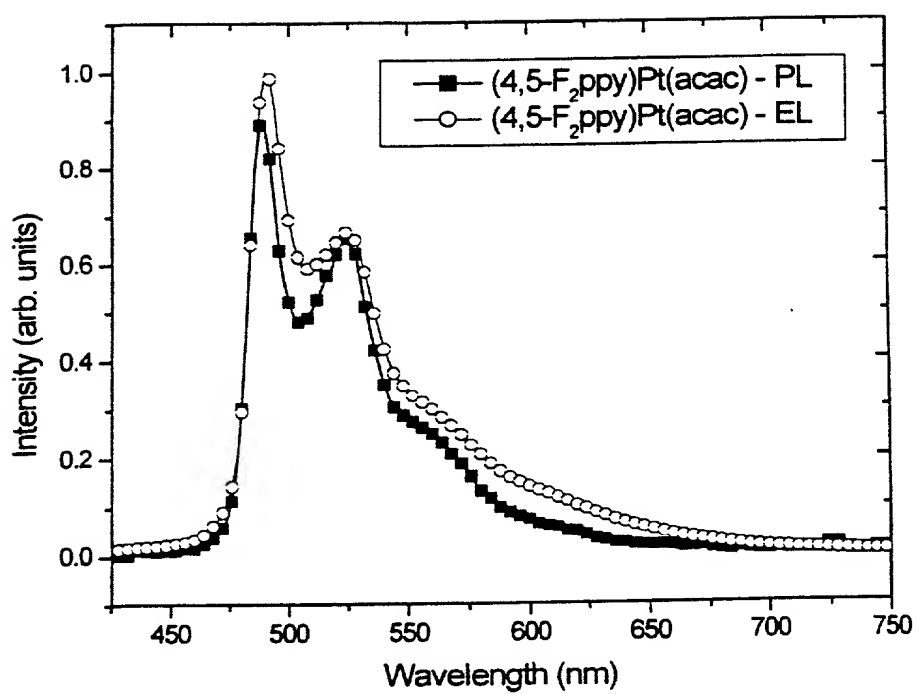
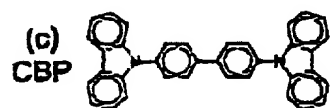
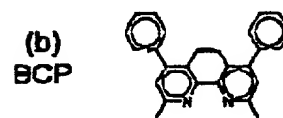
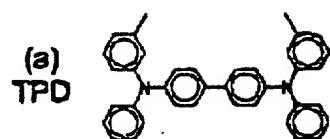


Figure 16

FIG. 17

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HOSTS



GUESTS

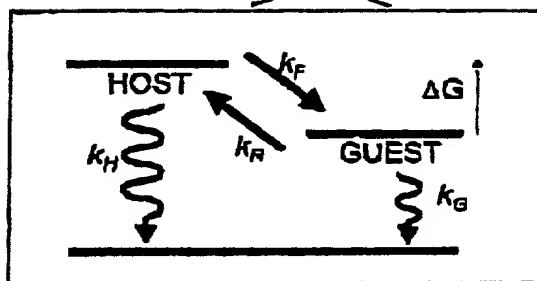
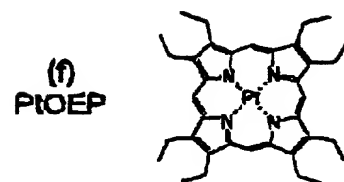
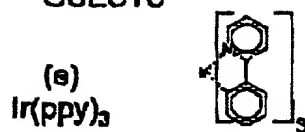


FIG. 18

PRB 62

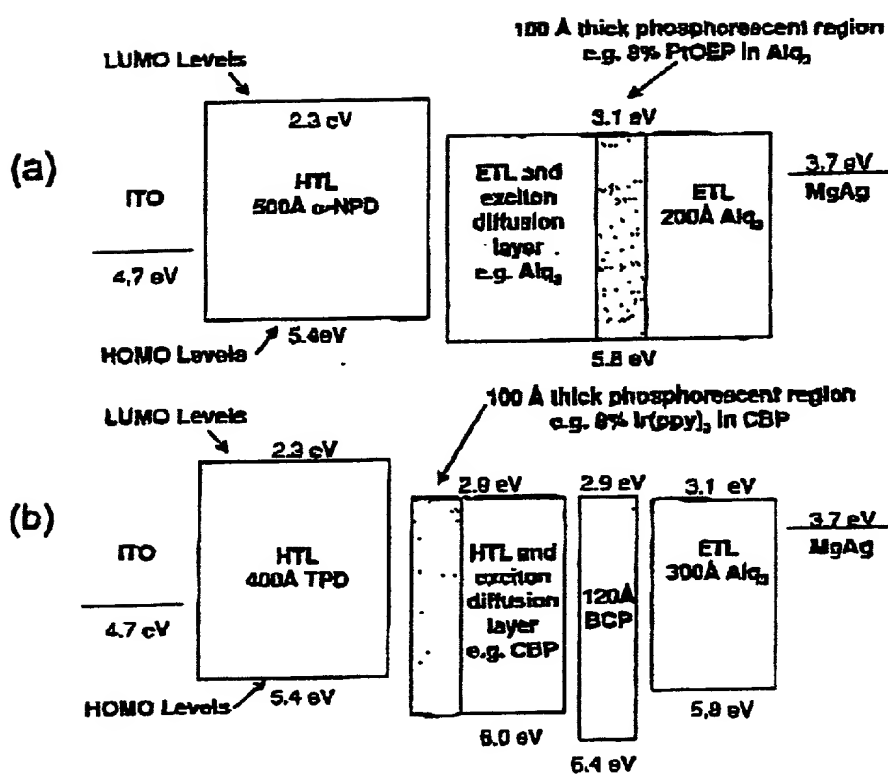


FIG. 19

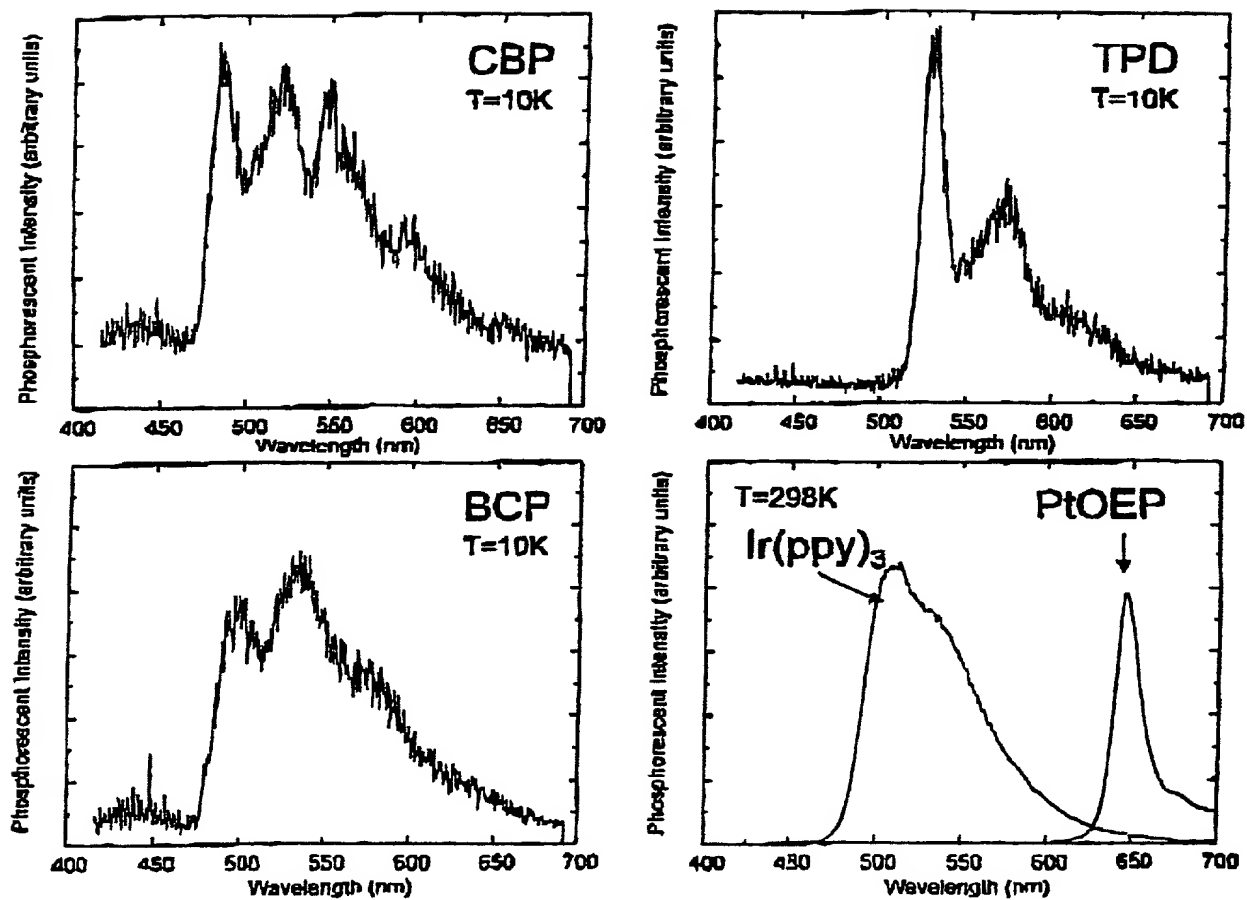


FIG. 20

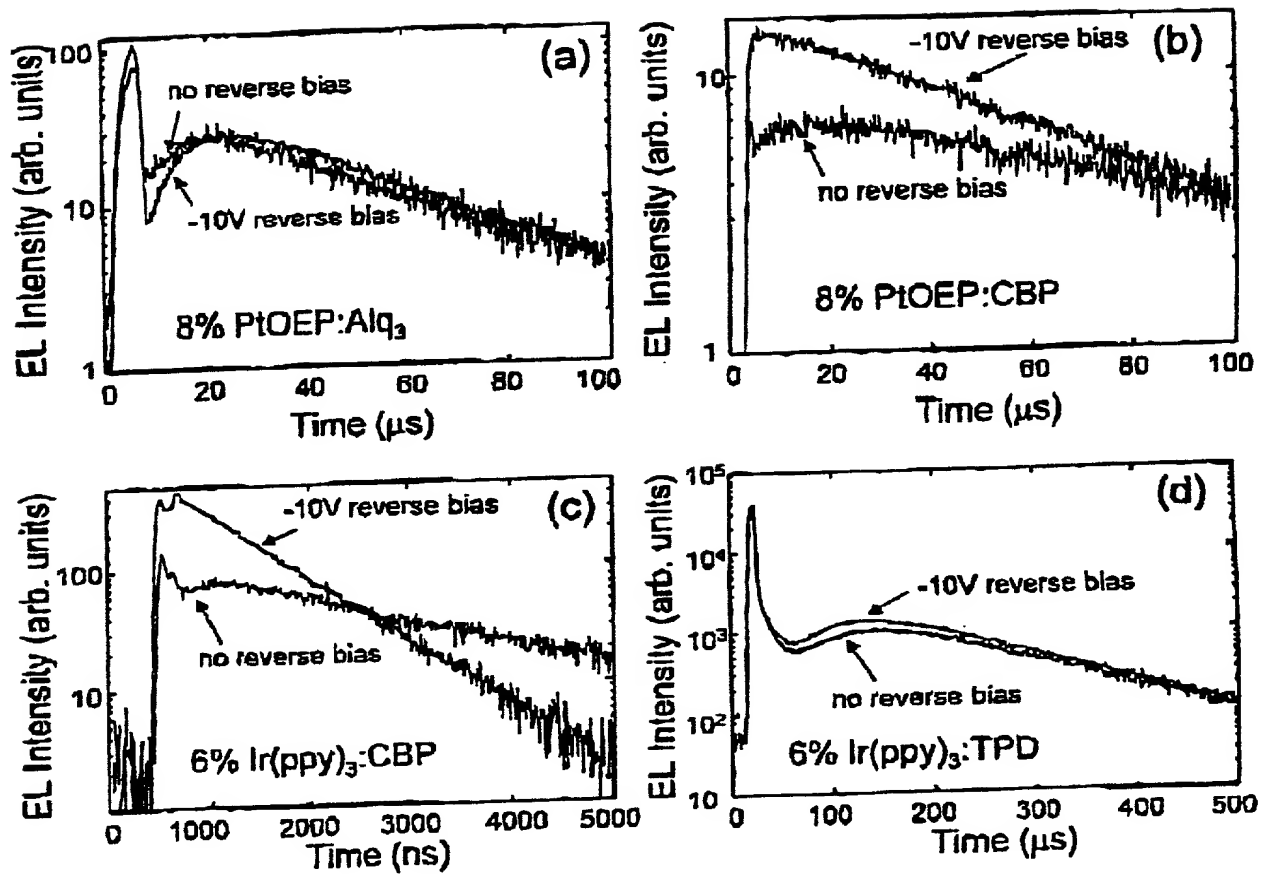


FIG. 21

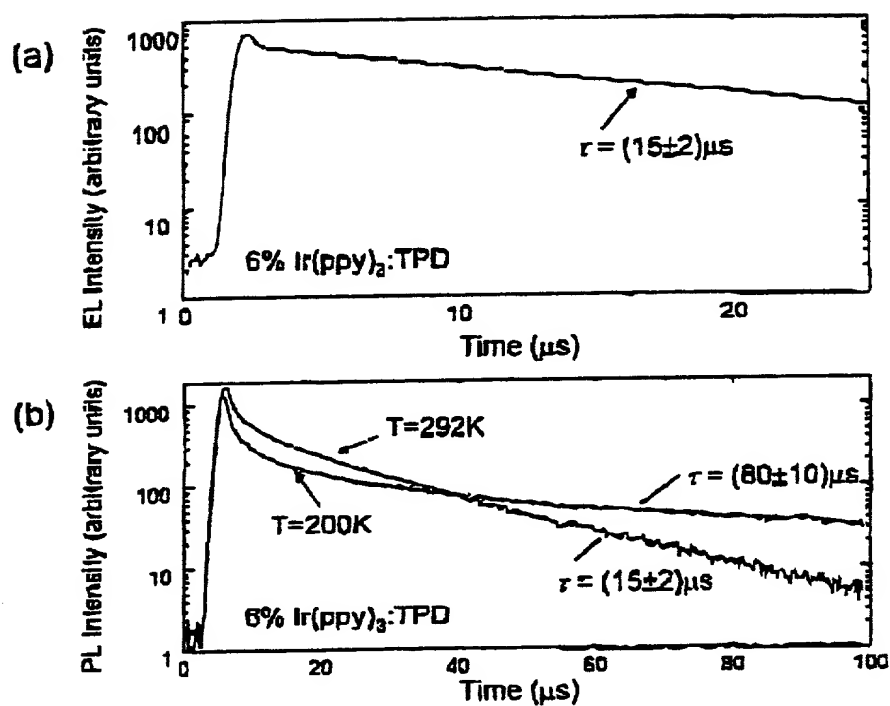


FIG. 22

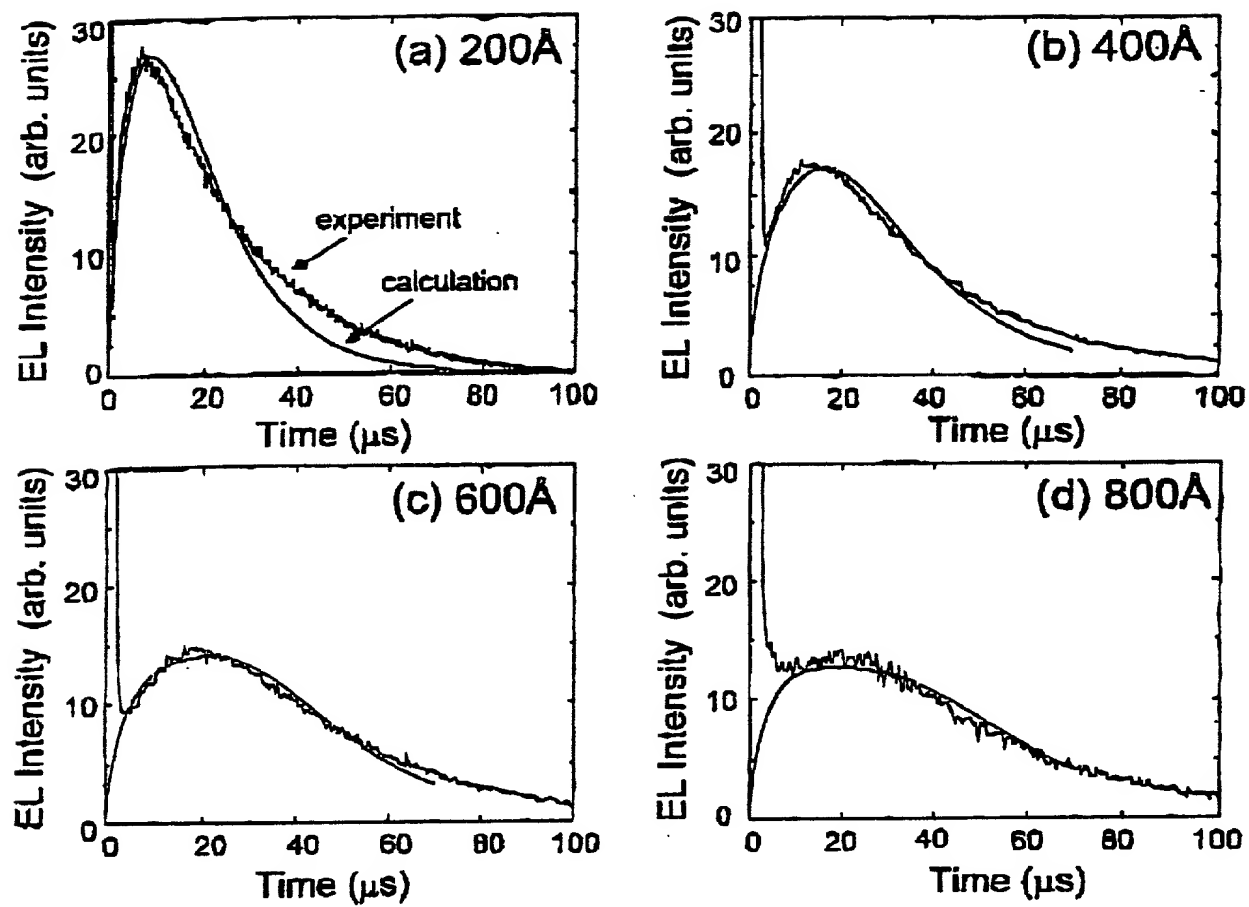


Fig. 23

